REDACTED

BLACK & VEATCH Waste Science, Inc.

400 Northridge Road, Suite 350, Atlanta, Georgia 30350, (404) 594-2500, Fax: (404) 587-2930

US EPA -- Region IV
Site Inspections
Work Assignment No. 12

BVWS Project 52012.304
September 12, 1994

Mr. Narindar Kumar
Chief, Site Assessment Section
U.S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Final Site Inspection Prioritization
Union Camp Corporation
Savannah, Chatham County, GA
EPA ID No. GAD980559215

Dear Mr. Kumar:

Enclosed please find two copies of the Final Site Inspection Prioritization for Union Camp Corporation site in Savannah, Chatham County, Georgia. If you have any questions, please contact me at 404/643-2320.

Very truly yours,

BLACK & VEATCH Waste Science, Inc.

Victor Blix
Project Manager

fw
Enclosure

cc: Doug Thompson, EPA PO, w/o enclosures
Deborah Davidson, EPA CO, w/o enclosures
Earl Bozeman, EPA WAM, w/o enclosures

RECD.
SEP 13 1994

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DYNAMAC
CORPORATION
Environmental Services

Peachtree Center Tower
230 Peachtree Street, N.W.
Suite 500
Atlanta, GA 30303

Telephone: 404-681-0933
Fax: 404-681-0894

July 21, 1994

Mr. Narindar Kumar, Chief
Site Assessment Section
U. S. Environmental Protection Agency
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Site Inspection Prioritization
Union Camp Corporation
Savannah, Chatham County, Georgia
EPA ID GAD980559215

Re: BVWS Contract Nº 68-W9-0055 - Task Order 6, Amendment 2
BVWS Project 52012.304
Document Control BVWS-SIP-RD-039

Dear Mr. Kumar:

Dynamac Corporation has been tasked by BLACK & VEATCH Waste Science, Inc., under U.S. Environmental Protection Agency (EPA) Contract Nº 68-W9-0055 to conduct a Site Inspection Prioritization (SIP) for the Union Camp Corporation (Union Camp) in Savannah, Chatham County, Georgia. In accordance with the scope of work for this task order, a preliminary Hazard Ranking System (HRS) score was prepared to determine the need for future activities at the site.

Union Camp (the facility) operates a multifaceted manufacturing facility in a highly industrialized area of Savannah. From 1936 to 1962, Union Camp operated a landfill along Allen Boulevard in the northwestern portion of the facility property. This landfill has been the primary focus of investigations conducted at the facility (Refs. 1; 2, p. 1; 3; 4, p. 1; 5, p. 2). The approximately 4-acre landfill mainly received wastes related to paper and board production at the facility, including wood chips, grit, sand and ashes. The amount of waste deposited into the landfill is not known (Refs. 2, p. 4; 5, p. 2). Radioactive waste and DDT allegedly were deposited at the landfill; however, the facility disputes allegations of radioactive waste disposal (Ref. 5, p. 2). The landfill was closed in 1961 or 1962 (Refs. 2, p. 4; 5, p. 1). Currently, the landfill rises approximately 40 to 60 feet above the land surface and is vegetated with grass and shrubs (Refs. 2, p. 4; 5, p. 2). During a November 1988 site visit, Georgia Department of Natural Resources, Environmental Protection Division (GA EPD) personnel observed waste resembling fly ash and an unknown residue resembling wood pulp on the surface of the landfill (Ref. 5, p. 2).

On August 26, 1988, GA EPD conducted a Screening Site Investigation (SSI) during which a waste sample, two soil samples, two groundwater samples and a surface water sample were collected (Refs. 2, pp. 9, 10; 5, p. 4). The samples were analyzed for selected inorganic constituents and volatile organic compounds (VOCs) (Ref. 2, App. C, p. 1). No background surface water samples were collected; however, a background soil sample was collected. The SSI Report designated a private well located approximately 2.4 miles northeast of the landfill as the site of a background groundwater sample; however, due to its distance from the landfill and its unknown depth, the private well was not evaluated as a background well for this SIP (Ref. 2, p. 9). Analyses of the waste sample indicated detectable levels of barium, chromium and nickel (Ref. 2, p. 10, App. C, p. 2). Analyses of the soil sample indicated elevated levels of barium, chromium and lead (Ref. 2, p. 10, App. C, p. 2). Analyses of a groundwater sample collected from a 4-foot boring on the northwest side of the landfill indicated detectable levels of barium, chromium, nickel and lead (Ref. 2, p. 10, App. C, p. 2). Analyses of the surface water sample which was collected from an intermittently flowing drainage ditch on the northwest edge of the landfill indicated detectable levels of barium and chromium (Ref. 2, p. 10, App. C, p. 2; 5, p. 2). The sample location map does not indicate the origin or terminus of the drainage ditch (Ref. 5, p. 5). No VOCs were detected in any of the samples collected during the SSI.

A preliminary HRS score for the landfill was calculated using the Site Inspection Worksheets. Pathways evaluated include groundwater migration, surface water migration, soil exposure and air migration. The score reflects a Hazardous Waste Quantity value of 10 for all pathways based on the total acreage of the landfill (4 acres). Contaminant characteristic values were highest for lead and chromium.

Approximately 65,538 persons within a 4-mile radius of the landfill obtain potable water from municipal water companies and community wells which are supplied by wells completed in the confined Floridan Aquifer system, which is a karstic aquifer. A total of 119 persons are supplied drinking water from private wells within the 4-mile radius (Refs. 2, p. 5; 6, pp. 2-4, 102-104, 156, 159, 196; 7). No observed release to groundwater was documented; therefore, the groundwater migration pathway was scored based upon potential to release to the Floridan Aquifer system. The groundwater migration pathway score was highly influenced by the large groundwater population.

Surface water runoff from the landfill drains either northwest into a drainage ditch located northwest of the landfill or radially from the landfill into the surrounding, flat-lying terrain (Refs. 1; 2, p. 5; 5, pp. 2, 5). For the purposes of this SIP, the surface water runoff in the drainage ditch was assumed to enter the network of drainage ditches at the facility and eventually enter the tidally influenced Savannah River approximately 3,000 feet northeast of the landfill (Refs. 1; 3, p. 5; 8). The 15-mile surface water migration pathway is completed in the Savannah River (Ref. 1). The Savannah River, which has an estimated

flow rate of between 10,000 and 100,000 cubic feet per second, is a documented fishery (Refs. 9; 10). The ranges of several federally and state-designated endangered and/or threatened species occur within the state of Georgia; however, no species were specifically identified along the Savannah River (Ref. 11). The Tybee Island National Wildlife Refuge, a sensitive environment, is located approximately 14.5 miles downstream of the landfill (Ref. 1). No surface water intakes for drinking water were identified along the 15-mile surface water migration pathway (Ref. 2, p. 5). The surface water pathway was scored based upon potential to release due to the lack of a documented observed release (Ref. 12). The overall surface water migration pathway score was limited by a low potential to release value and low dilution weight value for the Savannah River.

Land use within a 0.5 mile radius of the landfill is highly industrialized; land use within the remainder of the 4-mile radius is a mixture of residential and industrial areas (Refs. 1; 2, pp. 1, 4). The nearest residence is located approximately 3,696 feet west of the landfill (Ref. 1). The facility is active; five workers were assumed to be located on a source in order to present a "worst-case" scenario. The ranges of several endangered and/or threatened species include Chatham County and the state of Georgia; however, the specific locations of these species are unknown (Refs. 1; 11). A total of 63,864 people reside within 4 miles of the landfill (Ref. 13). The soil exposure pathway score was evaluated based on the presence of inorganic constituents in the onsite soil sample and waste sample collected during the SSI; however, the soil exposure score was limited by low target values. The air pathway was scored based on potential to release; no air samples have been collected.

HRS SCORING SUMMARY

S_{gw}	=	57.82
S_{sw}	=	0.22
S_{soil}	=	0.60
S_{air}	=	0.52
OVERALL SCORE	=	28.91

Due to the site score, which is above the cutoff value of 28.50, the landfill may be eligible for further action. It should be noted, however, that the overall site score was greatly influenced by the large groundwater target population obtaining water from the confined Floridan Aquifer system.

Attached are all references used during this evaluation. If you have any questions or comments, please contact Victor Blix at (404) 594-2500.

Sincerely,

DYNAMAC CORPORATION

Betty Ann Pruner
Site Manager

David L. Rusher
Vice President
Southern Division

Enclosures

cc: Lori C. Conway, Dynamac Site Assessment Project Manager
Victor Blix, BVWS SIP Project Manager
File

REFERENCES

1. U.S. Geological Survey, 7.5 minute series Topographic Quadrangle Maps of Georgia: Savannah, Georgia-South Carolina 1978, Port Wentworth, Georgia-South Carolina 1980, Limehouse, South Carolina-Georgia 1980, Garden City, Georgia 1980, scale 1: 24,000.

2. Screening Site Investigation Report for Union Camp Corporation, Savannah, Georgia. Prepared by Randy E. Dominy, Environmental Specialist, Georgia Environmental Protection Division, October 1988.

3. Site Maintenance Form, U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, CERCLA, July 16, 1985.

4. Potential Hazardous Waste Site Identification and Preliminary Assessment (EPA Form 2070-2 for Union Camp Corporation, Savannah, Chatham County, Georgia. Prepared by Jim Ussery, September 14, 1982.

5. Report of Trip to Union Camp Corporation on August 25, 1988; prepared by Randy Dominy, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, November 29, 1988.

6. Len Dangerfield, FOIA Coordinator, Water Management Division, U.S. Environmental Protection Agency, Region IV, letter to with attachment Susan Rusher, Site Manager, Dynamac Corporation, March 31, 1993. Subject: 4-RIN-00834-93, FOIA request regarding Federal Reporting Data Systems Report on Chatham County, Georgia.

7. U.S. Department of Commerce, Bureau of the Census, 1990 Census of Population and Housing: Summary Population and Housing Characteristics - Georgia, 1990 CPH-1-12 (Washington, D.C.: GPO, 1991), excerpt, 3 pages.

8. Carl Hall, Regional Supervisor, Georgia Department of Natural Resources, Coastal Coastal Region Fishery Management, telephone conversation with Sandra Harrigan, Dynamac Corporation, May 6, 1994. Subject: Tidal influence in selected surface water bodies in Savannah, Georgia.

9. Bill Stokes, Supervisor Hydrologist, U.S. Geological Services, telephone conversation with Susan L. Rusher, Dynamac Corporation, September 15, 1992. Subject: Types of surface water bodies in the Thunderbolt area.

10. Carl Hall, Regional Supervisor, Georgia Department of Natural Resources, Coastal Coastal Region Fishery Management, telephone conversation with Sandra Harrigan, Dynamac Corporation, April 28, 1994. Subject: Uses of surface water bodies in Savannah, Georgia.

11. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (The Red Book), Vol. 1 (Washington, D.C.: GPO, 1992), excerpt, 6 pages.

12. U.S. Department of Commerce, Rainfall Frequency Atlas of the United States, Technical Paper Number 40 (Washington, D.C.: GPO, 1961), excerpt, 3 pages.

13. U.S. Environmental Protection Agency, Graphical Exposure Modeling System (GEMS) Data Base, compiled from U.S. Bureau of the Census data (1990).

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

GROUNDWATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Likelihood of Release to an Aquifer	Maximum Value	Value Assigned	
1.	Observed Release	550	0	
2.	Potential to Release			
	2a. Containment	10	10	
	2b. Net Precipitation	10	3	
	2c. Depth to Aquifer	5	3	
	2d. Travel Time	35	15	
	2e. Potential to Release (lines 2a x [2b + 2c + 2d])	500	210	
3.	Likelihood of Release (higher of lines 1 and 2e)	550		210
	Waste Characteristics			
4.	Toxicity/Mobility	[a]	100	
5.	Hazardous Waste Quantity	[a]	10	
6.	Waste Characteristics	100		6
	Targets			
7.	Nearest Well	50	20	
8.	Population			
	8a. Level I Concentrations	[b]	0	
	8b. Level II Concentrations	[b]	0	
	8c. Potential Contamination	[b]	3,766	
	8d. Population (lines 8a + 8b + 8c)	[b]	3,766	
9.	Resources	5	0	
10.	Wellhead Protection Area	20	0	
11.	Targets (lines 7 + 8d + 9 + 10)	[b]		3,786
	Groundwater Migration Score for an Aquifer			
12.	Aquifer Score ([lines 3 x 6 x 11]/82,500)[c]	100		57.82
	Groundwater Migration Pathway Score			
13.	Groundwater Migration Pathway Score (S_{gw})[c] (highest value from line 12 for all aquifers evaluated)	100		57.82

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
DRINKING WATER THREAT			
Likelihood of Release			
1. Observed Release	550	0	
2. Potential to Release by Overland Flow			
2a. Containment	10	10	
2b. Runoff	25	7	
2c. Distance to Surface Water	25	6	
2d. Potential to Release by Overland Flow (lines 2a x [2b + 2c])	500	130	
3. Potential to Release by Flood			
3a. Containment (Flood)	10	10	
3b. Flood Frequency	50	7	
3c. Potential to Release by Flood (lines 3a x 3b)	500	70	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	200	
5. Likelihood of Release (higher of lines 1 and 4)	550		200
Waste Characteristics			
6. Toxicity/Persistence	[a]	10,000	
7. Hazardous Waste Quantity	[a]	10	
8. Waste Characteristics	100		18
Targets			
9. Nearest Intake	50	0	
10. Population			
10a. Level I Concentrations	[b]	0	
10b. Level II Concentrations	[b]	0	
10c. Potential Contamination	[b]	0	
10d. Population (lines 10a + 10b + 10c)	[b]	0	
11. Resources	5	5	
12. Targets (lines 9 + 10d + 11)	[b]		5
Drinking Water Threat Score			
13. Drinking Water Threat Score ([lines 5 x 8 x 12]/82,500, subject to a maximum of 100)	100		0.22

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET, Continued

Factor Categories and Factors	Maximum Value	Value Assigned	
HUMAN FOOD CHAIN THREAT			
Likelihood of Release			
14. Likelihood of Release (value from line 5)	550		200
Waste Characteristics			
15. Toxicity/Persistence/Bioaccumulation	[a]	$5x10^7$	
16. Hazardous Waste Quantity	[a]	10	
17. Waste Characteristics	1,000		100
Targets			
18. Food Chain Individual	50	0	
19. Population			
19a. Level I Concentrations	[b]	0	
19b. Level II Concentrations	[b]	0	
19c. Potential Human Food Chain Contamination	[b]	0	
19d. Population (lines 19a + 19b + 19c)	[b]	0	
20. Targets (lines 18 + 19d)	[b]		0
Human Food Chain Threat Score			
21. Human Food Chain Threat Score ([lines 14 x 17 x 20]/82,500, subject to a maximum of 100)	100		0.00
ENVIRONMENTAL THREAT			
Likelihood of Release			
22. Likelihood of Release (value from line 5)	550		200
Waste Characteristics			
23. Ecosystem Toxicity/Persistence/ Bioaccumulation	[a]	$5x10^6$	
24. Hazardous Waste Quantity	[a]	10	
25. Waste Characteristics	1,000		56

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET, Concluded

Factor Categories and Factors	Maximum Value	Value Assigned	
ENVIRONMENTAL THREAT (concluded)			
Targets			
26. Sensitive Environments			
26a. Level I Concentrations	[b]	0	
26b. Level II Concentrations	[b]	0	
26c. Potential Contamination	[b]	0.00075	
26d. Sensitive Environments (lines 26a + 26b + 26c)	[b]	0.00075	
27. Targets (value from line 26d)	[b]		0.00075
Environmental Threat Score			
28. Environmental Threat Score ([lines 22 x 25 x 27]/82,500, subject to a maximum of 60)	60		0.00
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE FOR A WATERSHED			
29. Watershed Score[c] (lines 13 + 21 + 28, subject to a maximum of 100)	100		0.22
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORE			
30. Component Score (S_{of})[c] (highest score from line 29 for all watersheds evaluated, subject to a maximum of 100)	100		0.22

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET

Factor Categories and Factors		Maximum Value	Value Assigned	
RESIDENT POPULATION THREAT				
	Likelihood of Exposure			
1.	Likelihood of Exposure	550		550
	Waste Characteristics			
2.	Toxicity	[a]	10,000	
3.	Hazardous Waste Quantity	[a]	10	
4.	Waste Characteristics	100		18
	Targets			
5.	Resident Individual	50	0	
6.	Resident Population			
	6a. Level I Concentrations	[b]	0	
	6b. Level II Concentrations	[b]	0	
	6c. Resident Population (lines 6a + 6b)	[b]	0	
7.	Workers	15	5	
8.	Resources	5	0	
9.	Terrestrial Sensitive Environments	[d]	0	
10.	Targets (lines 5 + 6c + 7 + 8 + 9)	[b]		5
	Resident Population Threat Score			
11.	Resident Population Threat ([lines 1 x 4 x 10]/82,500)	[b]		0.60
NEARBY POPULATION THREAT				
	Likelihood of Exposure			
12.	Attractiveness/Accessibility	100	5	
13.	Area of Contamination	100	40	
14.	Likelihood of Exposure	500		5
	Waste Characteristics			
15.	Toxicity	[a]	10,000	
16.	Hazardous Waste Quantity	[a]	10	
17.	Waste Characteristics	100		18

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

SOIL EXPOSURE PATHWAY SCORESHEET, Concluded

Factor Categories and Factors		Maximum Value	Value Assigned	
NEARBY POPULATION THREAT (Concluded)				
	Targets			
18.	Nearby Individual	1	0	
19.	Population Within 1 Mile	[b]	1	
20.	Targets (lines 18 + 19)	[b]		1
	Nearby Population Threat Score			
21.	Nearby Population Threat ([lines 14 x 17 x 20]/82,500)	[b]		0.60
SOIL EXPOSURE PATHWAY SCORE				
22.	Soil Exposure Pathway Score (S_{soil})[d] (lines 11 + 21, subject to a maximum of 100)	100		0.60

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.
[d] No specific maximum value applies to factor. However, a pathway score based solely on sensitive environments is limited to a maximum value of 60.

Site Name: Union Camp Corporation **DRAFT**
Location: Savannah, Chatham County, Georgia

AIR MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Likelihood of Release	Maximum Value	Value Assigned	
1.	Observed Release	550	0	
2.	Potential to Release			
	2a. Gas Potential to Release	500	-	
	2b. Particulate Potential to Release	500	-	
	2c. Potential to release higher of lines 2a and 2b)	500	500*	
3.	Likelihood of Release (higher of lines 1 and 2c)	550		500*
	Waste Characteristics			
4.	Toxicity/Mobility	[a]	2	
5.	Hazardous Waste Quantity	[a]	10	
6.	Waste Characteristics	100		2
	Targets			
7.	Nearest Individual	50	20	
8.	Population			
	8a. Level I Concentrations	[b]	0	
	8b. Level II Concentrations	[b]	0	
	8c. Potential Contamination	[b]	23	
	8d. Population (lines 8a + 8b + 8c)	[b]	23	
9.	Resources	5	0	
10.	Sensitive Environments			
	10a. Actual Contamination	[d]	0	
	10b. Potential Contamination	[d]	0	
	10c. Sensitive Environments (lines 10a + 10b)	[d]	0	
11.	Targets (lines 7 + 8d + 9 + 10c)	[b]		43
	Air Migration Pathway Score			
12.	Air Migration Pathway Score (S_{air}) ([lines 3 x 6 x 11]/82,500)	100		0.52

[a] Maximum value applies to waste characteristics category.
[b] Maximum value not applicable.
[c] Do not round to nearest integer.
[d] No specific maximum value applies to factor. However, a pathway score based solely on sensitive environments is limited to a maximum value of 60.
* Default value.
\- Not evaluated.

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SITE INSPECTION WORKSHEETS

CERCLIS IDENTIFICATION NUMBER
GAD980559215

SITE LOCATION			
SITE NAME: LEGAL, COMMON, OR DESCRIPTIVE NAME OF SITE: Union Camp Corporation			
STREET ADDRESS, ROUTE, OR SPECIFIC LOCATION IDENTIFIER: Allen Boulevard			
CITY: Savannah	STATE: GA	ZIP CODE: 31401	TELEPHONE: (912) 237-5771
COORDINATES: LATITUDE and LONGITUDE	TOWNSHIP, RANGE, AND SECTION		

OWNER/OPERATOR IDENTIFICATION					
OWNER: Union Camp Corporation			OPERATOR: Christopher Matthews		
OWNER ADDRESS			OPERATOR ADDRESS: Allen Boulevard		
CITY			CITY: Savannah		
STATE	ZIP CODE	TELEPHONE ( )	STATE: GA	ZIP CODE: 31401	TELEPHONE: (912) 237-5771

SITE EVALUATION		
AGENCY/ORGANIZATION		
INVESTIGATOR: Betty Ann Pruner		
CONTACT: John McKeown / EPA		
ADDRESS: 230 Peachtree St; Suite 500		
CITY: Atlanta, GA	STATE: GA	ZIP CODE: 30303
TELEPHONE: 404 681-0933		

GENERAL INFORMATION

Site Description and Operational History: *Provide a brief description of the site and its operational history.* State the site name, owner, operator, type of facility and operations, size of property, active or inactive status, and years of waste generation. Summarize waste treatment, storage, or disposal activities that have or may have occurred at the site; note whether these activities are documented or alleged. Identify all source types and prior spills, floods, or fires. Summarize highlights of the PA and other investigations. Cite references.

- See SI Report

GENERAL INFORMATION (continued)

Site Sketch: Provide a sketch of the site. Indicate all pertinent features of the site and nearby environments including sources of wastes, areas of visible and buried wastes, buildings, residences, access roads, parking areas, fences, fields, drainage patterns, water bodies, vegetation, wells, sensitive environments, and other features.

- see SI Report (Ref. 8 of SI)

GENERAL INFORMATION (continued)

Source Descriptions: Describe all sources at the site. Identify source type and relate to waste disposal operations. Provide source dimensions and the best available waste quantity information. Describe the condition of sources and all containment structures. Cite references.

SOURCE TYPES

Landfill: A man-made (by excavation or construction) or natural hole in the ground into which wastes have come to be disposed by backfilling, or by contemporaneous soil deposition with waste disposal.

Surface Impoundment: A natural topographic depression, man-made excavation, or diked area, primarily formed from earthen materials (lined or unlined) and designed to hold an accumulation of liquid wastes, wastes containing free liquids, or sludges not backfilled or otherwise covered; depression may be wet with exposed liquid or dry if deposited liquid has evaporated, volatilized or leached; structures that may be described as lagoon, pond, aeration pit, settling pond, tailings pond, sludge pit; also a surface impoundment that has been covered with soil after the final deposition of waste materials (i.e., buried or backfilled).

Drum: A portable container designed to hold a standard 55-gallon volume of wastes.

Tank and Non-Drum Container: Any device, other than a drum, designed to contain an accumulation of waste that provides structural support and is constructed primarily of fabricated materials (such as wood, concrete, steel, or plastic); any portable or mobile device in which waste is stored or otherwise handled.

Contaminated Soil: An area or volume of soil onto which hazardous substances have been spilled, spread, disposed, or deposited.

Pile: Any non-containerized accumulation above the ground surface of solid, non-flowing wastes; includes open dumps. Some types of waste piles are:

- Chemical Waste Pile: A pile consisting primarily of discarded chemical products, by-products, radioactive wastes, or used or unused feedstocks.
- Scrap Metal or Junk Pile: A pile consisting primarily of scrap metal or discarded durable goods (such as appliances, automobiles, auto parts, batteries, etc.) composed of materials containing hazardous substances.
- Tailings Pile: A pile consisting primarily of any combination of overburden from a mining operation and tailings from a mineral mining, beneficiation, or processing operation.
- Trash Pile: A pile consisting primarily of paper, garbage, or discarded non-durable goods containing hazardous substances.

Land Treatment: Landfarming or other method of waste management in which liquid wastes or sludges are spread over land and tilled, or liquids are injected at shallow depths into soils.

Other: Sources not in categories listed above.

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GENERAL INFORMATION (continued)

Source Description: Include description of containment per pathway for ground water (see HRS Table 3-2), surface water (see HRS Table 4-2), and air (see HRS Tables 6-3 and 6-9).

- See SI Report

Hazardous Waste Quantity (HWQ) Calculation: SI Tables 1 and 2 (See HRS Tables 2-5, 2-6, and 5-2).

- Landfill, approximately 4 acres in size
- possibly radioactive waste disposal in landfill – Received wastes from 1936 to 1962 – records of wastes disposed non-existent
- possibly drums of unidentified waste – May have received wastes related to the paper and board industry – SI

4 acres × 43,560 ft²/acres = 174,240 ft²

SOIL EXPOSURE PATHWAY:
174,240 ft² ÷ 34,000 = 5.12 HWQ = 10 for Soil Exposure

Attach additional pages, if necessary

HWQ = 10

SI TABLE 1: HAZARDOUS WASTE QUANTITY (HWQ) SCORES FOR SINGLE SOURCE SITES AND FORMULAS FOR MULTIPLE SOURCE SITES

		Single Source Sites (assigned HWQ scores)	
(Column 1) TIER	(Column 2) Source Type	(Column 3) HWQ = 10	(Column 4) HWQ = 100
A Hazardous Constituent Quantity	N/A	*HWQ = 1 if* Hazardous Constituent Quantity data are complete *HWQ = 10 if* Hazardous Constituent Quantity data are not complete	>100 to 10,000 lbs
B Hazardous Wastestream Quantity	N/A	≤ 500,000 lbs	>500,000 to 50 million lbs
C Volume	Landfill	≤ 6.75 million ft^3 ≤ 250,000 yd^3	>6.75 million to 675 million ft^3 >250,000 to 25 million yd^3
	Surface impoundment	≤6,750 ft^3 ≤250 yd^3	>6,750 to 675,000 ft^3 >250 to 25,000 yd^3
	Drums	≤1,000 drums	>1,000 to 100,000 drums
	Tanks and non-drum containers	≤50,000 gallons	>50,000 to 5 million gallons
	Contaminated soil	≤6.75 million ft^3 ≤250,000 yd^3	>6.75 million to 675 million ft^3 >250,000 to 25 million yd^3
	Pile	≤6,750 ft^3 ≤250 yd^3	>6,750 to 675,000 ft^3 >250 to 25,000 yd^3
	Other	≤6,750 ft^3 ≤250 yd^3	>6,750 to 675,000 ft^3 >250 to 25,000 yd^3
D Area	Landfill	≤340,000 ft^2 ≤7.8 acres	>340,000 to 34 million ft^2 >7.8 to 780 acres
	Surface impoundment	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres
	Contaminated soil	≤3.4 million ft^2 ≤78 acres	> 3.4 million to 340 million ft^2 > 78 to 7,800 acres
	Pile	≤1,300 ft^2 ≤0.029 acres	>1,300 to 130,000 ft^2 >0.029 to 2.9 acres
	Land treatment	≤27,000 ft^2 ≤0.62 acres	>27,000 to 2.7 million ft^2 >0.62 to 62 acres

1 ton = 2,000 pounds = 1 cubic yard = 4 drums = 200 gallons

TABLE 1 (CONTINUED)

Single Source Sites (assigned HWQ scores)		Multiple Source Sites		
(Column 5) HWQ = 10,000	(Column 6) HWQ = 1,000,000	(Column 7) Divisors for Assigning Source WQ Values	(Column 2) Source Type	(Column 1) TIER
>10,000 to 1 million lbs	> 1 million lbs	lbs ÷ 1	N/A	A Hazardous Constituent Quantity
>50 million to 5 billion lbs	> 5 billion lbs	lbs ÷ 5,000	N/A	B Hazardous Wastestream Quantity
>675 million to 67.5 billion ft^3 >25 million to 2.5 billion yd^3	> 67.5 billion ft^3 > 2.5 billion yd^3	ft^3 ÷ 67,500 yd^3 ÷ 2,500	Landfill	C Volume
>675,000 to 67.5 million ft^3 >25,000 to 2.5 million yd^3	> 67.5 million ft^3 > 2.5 million yd^3	ft^3 ÷ 67.5 yd^3 ÷ 2.5	Surface Impoundment	
>100,000 to 10 million drums	> 10 million drums	drums ÷ 10	Drums	
>5 million to 500 million gallons	> 500 million gallons	gallons ÷ 500	Tanks and non-drum containers	
>675 million to 67.5 billion ft^3 >25 million to 2.5 billion yd^3	> 67.5 billion ft^3 > 2.5 billion yd^3	ft^3 ÷ 67,500 yd^3 ÷ 2,500	Contaminated Soil	
>675,000 to 67.5 million ft^3 >25,000 to 2.5 million yd^3	> 67.5 million ft^3 > 2.5 million yd^3	ft^3 ÷ 67.5 yd^3 ÷ 2.5	Pile	
>675,000 to 67.5 million ft^3 >25,000 to 2.5 million yd^3	> 67.5 million ft^3 > 2.5 million yd^3	ft^3 ÷ 67.5 yd^3 ÷ 2.5	Other	
>34 million to 3.4 billion ft^2 >780 to 78,000 acres	> 3.4 billion ft^2 >78,000 acres	ft^2 ÷ 3,400 acres ÷ 0.078	Landfill	D Area
>130,000 to 13 million ft^2 >2.9 to 290 acres	> 13 million ft^2 > 290 acres	ft^2 ÷ 13 acres ÷ 0.00029	Surface Impoundment	
> 340 million to 34 billion ft^2 > 7,800 to 780,000 acres	> 34 billion ft^2 > 780,000 acres	ft^2 ÷ 34,000 acres ÷ 0.78	Contaminated Soil	
> 130,000 to 13 million ft^2 > 2.9 to 290 acres	> 13 million ft^2 > 290 acres	ft^2 ÷ 13 acres ÷ 0.00029	Pile	
>2.7 million to 270 million ft^2 >62 to 6,200 acres	> 270 million ft^2 > 6,200 acres	ft^2 ÷ 270 acres ÷ 0.0062	Land Treatment	

1 ton = 2,000 pounds = 1 cubic yard = 4 drums = 200 gallons

HAZARDOUS WASTE QUANTITY (HWQ) CALCULATION

For each migration pathway, evaluate HWQ associated with sources that are available (i.e., incompletely contained) to migrate to that pathway. (Note: If *Actual Contamination Targets* exist for ground water, surface water, or air migration pathways, assign the calculated HWQ score or 100, whichever is greater, as the HWQ score for that pathway.) For each source, evaluate HWQ for one or more of the four tiers (SI Table 1; HRS Table 2-5) for which data exist: constituent quantity, wastestream quantity, source volume, and source area. Select the tier that gives the highest value as the source HWQ. Select the source volume HWQ rather than source area HWQ if data for both tiers are available.

Column 1 of SI Table 1 indicates the quantity tier. Column 2 lists source types for the four tiers. Columns 3, 4, 5, and 6 provide ranges of waste amount for sites with only one source, corresponding to HWQ scores at the tops of the columns. Column 7 provides formulas to obtain source waste quantity values at sites with multiple sources.

1. Identify each source type.
2. Examine all waste quantity data available for each source. Record constituent quantity and waste stream mass or volume. Record dimensions of each source.
3. Convert source measurements to appropriate units for each tier to be evaluated.
4. For each source, use the formulas in the last column of SI Table 1 to determine the waste quantity value for each tier that can be evaluated. Use the waste quantity value obtained from the highest tier as the quantity value for the source.
5. Sum the values assigned to each source to determine the total site waste quantity.
6. Assign HWQ score from SI Table 2 (HRS Table 2-6).

Note these exceptions to evaluate soil exposure pathway HWQ (see HRS Table 5-2):

- The divisor for the area (square feet) of a landfill is 34,000.
- The divisor for the area (square feet) of a pile is 34.
- Wet surface impoundments and tanks and non-drum containers are the only sources for which volume measurements are evaluated for the soil exposure pathway.

SI TABLE 2: HWQ SCORES FOR SITES

Site WQ Total	HWQ Score
0	0
1[a] to 100	1[b]
> 100 to 10,000	100
> 10,000 to 1 million	10,000
> 1 million	1,000,000

[a] If the WQ total is between 0 and 1, round it to 1.
[b] If the hazardous constituent quantity data are not complete, assign the score of 10.

SI TABLE 3: WASTE CHARACTERIZATION WORKSHEET

Site Name: Union Camp Corporation **References** SSI

Sources:

1. Landfill (soil samples collected during SSI) 4. ______ 7. ______
2. ______ 5. ______ 8. ______
3. ______ 6. ______ 9. ______

C-1 (landfill sampling data)

SOURCE	HAZARDOUS SUBSTANCE	TOXICITY	GROUND WATER PATHWAY		SURFACE WATER PATHWAY: OVERLAND/FLOOD MIGRATION							SURFACE WATER PATHWAY: GROUND WATER TO SURFACE WATER				AIR Pathway
			GW Mobility (HRS Table 3-8)	Tox/ Mobility Value (HRS Table 3-9)	Per (HRS Tables 4-10 and 4-11)	Tox/Per Value (HRS Table 4-12)	FOOD CHAIN / ENV Bioac Pot. (HRS Table 4-15)	Tox/ Pers/ Bioac Value (HRS Table 4-16)	Ecotox (HRS Table 4-19)	Ecotox/ Pers (HRS Table 4-20)	Ecotox/ Pers/ Bioacc Value (HRS Table 4-21)	Tox/ Mob/ Pers Value (HRS Table 4-26)	Tox/ Mob/ Pers/ Bioacc Value (HRS Table 4-28)	Ecotox/ Mob/ Pers Value (HRS Table 4-29)	Ecotox/ Mob/ Per/ Bioacc Value (HRS Table 4-30)	Toxicity mobility
1	Barium	10	1.0E-2	.10	1.0	10	0.5 / 0.5	5	1	1	0.5					.002 PART. .0002
1	Chromium	10,000	1.0E-2	100	1.0	10,000	500 / 500	5×10^{6}	10,000	10,000	5×10[illegible]					2 PART. .0002
1	Nickel	10,000	2.0E-5	.10	1.0	10,000	500 / 500	5×10^{6}	1000	1000	5×10^{5}					2 PART. .0002
1	Lead	10,000	2.0E-5	.10	1.0	10,000	5000 / 5000	5×10^{7}	1000	1000	5×10^{6}					2 PART. .0002
	★															

★ NOTE: The PA Form 2070-2 completed in 1981 indicates that radioactive wastes + DDT may have been disposed onsite. During a 1988 site visit by the Georgia Environmental Protection Division, Union Camp disputed the EPD records indicating radioactive waste disposal w/in the landfill. Union Camp did

Ground Water Observed Release Substances Summary Table

On SI Table 4, list the hazardous substances associated with the site detected in ground water samples for that aquifer. Include only those substances directly observed or with concentrations significantly greater than background levels. Obtain toxicity values from the Superfund Chemical Data Matrix (SCDM). Assign mobility a value of 1 for all observed release substances regardless of the aquifer being evaluated. For each substance, multiply the toxicity by the mobility to obtain the toxicity/mobility factor value; enter the highest toxicity/mobility value for the aquifer in the space provided.

Ground Water Actual Contamination Targets Summary Table

If there is an observed release at a drinking water well, enter each hazardous substance meeting the requirements for an observed release by well and sample ID on SI Table 5 and record the detected concentration. Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For MCL and MCLG benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the population using the well as a Level I target. If these percentages are less than 100% or all are N/A, evaluate the population using the well as a Level II target for that aquifer.

SI TABLE 4: GROUND WATER OBSERVED RELEASE SUBSTANCES (BY AQUIFER)

Sample ID	Hazardous Substance	Bckgrd. Conc.	Toxicity/ Mobility	References
		Highest Toxicity/Mobility		

- detectable levels of metals in onsite GW - SSI Report
- no OR to GW documented - SSI Report
- A background groundwater sample was collected from an offsite private well; no depth was provided for the private well. Additionally, the private well is located 2.4 miles northwest of the landfill. Therefore, due to the distance of the private well from the landfill and the unknown depth of the private well, the private well was not considered an appropriate background. - SSI Report

SI TABLE 5: GROUND WATER ACTUAL CONTAMINATION TARGETS

Well ID: _____ Level I ____ Level II ____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

Well ID: _____ Level I ____ Level II ____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

GROUND WATER PATHWAY
GROUND WATER USE DESCRIPTION

Describe Ground Water Use within 4 Miles of the Site:
Describe generalized stratigraphy, aquifers, municipal and private wells

- See attached geology
- For GW target information, see FERDS printout for Chatham County

Show Calculations of Ground Water Drinking Water Populations for each Aquifer:
Provide apportionment calculations for blended supply systems.
County average number of persons per household: _____ Reference _____

See attached sheets for calculations.

— FERDS printout, pp. 9-10

TOTAL GW DOD. W/IN 4-mile radius served by municipal & community water systems

	# of wells	population	TOTAL
0-0.25 mile radius	—	—	0
0.25-0.5 mile radius	—	—	0
0.5-1 mile radius	1 Sav. well	7,528	7,528
1-2 mile radius	2 Garden City wells	2,964	2,964
2-3 mile radius	3 Sav. wells 1 Garden City well 1 Derenne Plaza	22,584 1,482 86	24,152
3-4 mile radius	4 Sav. wells Live Oak Nassau Woods 1 Suburbanite Village well	30,112 35 585 162	30,894

Garden City Water System

7,410 persons } 5 Garden City wells
7410 persons ÷ 5 wells = 1,482 persons/well
— FERDS printout, pp. 2-4

Derenne Plaza Condominiums

86 persons } 1 Derenne Plaza well — FERDS P. 159

Suburbanite Village

486 persons } 3 wells — FERDS printout, P. 102, 103, 104

Nassau Woods

585 persons } 1 well. — FERDS printout, P. 156

Live Oak Mobile Home Park

FERDS, p. 196

1 well - 35 people

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Savannah Water System

150,558 persons } 20 Savannah wells

150,558 persons ÷ 20 wells = 7,528 persons per well

- FERDS printout, pp. 9-10

	# of Savannah wells	population
0 - 0.25 mile radius		
0.25 - 0.5 mile radius		
0.5 - 1 mile radius	1 well	7,528
~~1 - 2 mile radius~~	~~3 wells~~	~~22,584~~
2 - 3 mile radius	3 wells	22,584
3 - 4 mile radius	4 wells	30,112

Private Wells w/in a 4-mile Radius

radius	# of privatewells	County Conv. Factor *	TOTAL POP. SERVED BY PRIVATEWE
0-0.25	—	2.59	—
0.25-0.5	—		—
0.5-1.0	0		0
1.0-2.0	1		(2.59) 3
2.0-3.0	16		(41.44) 41
3.0-4.0	29		(75.11) 75

NOTE: Wells were identified in the SSI Report. The exact locations of the private wells within the radius ring are not known.

* The 1990 U.S. Census Bureau county conversion factor of 2.59 persons-per-household for Chatham County was used to calculate the private well population.

GROUND WATER PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to the aquifer, assign a score of 550. Record observed release substances on SI Table 4.			
2. POTENTIAL TO RELEASE: Depth to aquifer: 150 feet bls. If sampling data do not support a release to the aquifer, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Optionally, evaluate potential to release according to HRS Section 3.			— see attached geology write-up
LR =	270		

TARGETS			
Are any wells part of a blended system? Yes ✓ No ____ If yes, attach a page to show apportionment calculations.			
3. ACTUAL CONTAMINATION TARGETS: If analytical evidence indicates that any target drinking water well for the aquifer has been exposed to a hazardous substance from the site, evaluate the factor score for the number of people served (SI Table 5). Level I: ____ people x 10 = ____ Level II: ____ people x 1 = ____ Total =	0		
4. POTENTIAL CONTAMINATION TARGETS: Determine the number of people served by drinking water wells for the aquifer or overlying aquifers that are not exposed to a hazardous substance from the site; record the population for each distance category in SI Table 6a or 6b. Sum the population values and multiply by 0.1.	3,766	H	— FERDS printout for Chatham County
5. NEAREST WELL: Assign a score of 50 for any Level I Actual Contamination Targets for the aquifer or overlying aquifer. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Targets exist, assign the Nearest Well score from SI Table 6a or 6b. If no drinking water wells exist within 4 miles, assign 0.	20		
6. WELLHEAD PROTECTION AREA (WHPA): If any source lies within or above a WHPA for the aquifer, or if a ground water observed release has occurred within a WHPA, assign a score of 20; assign 5 if neither condition applies but a WHPA is within 4 miles; otherwise assign 0.	0		— none identified in SSI
7. RESOURCES: Assign a score of 5 if one or more ground water resource applies; assign 0 if none applies. • Irrigation (5 acre minimum) of commercial food crops or commercial forage crops • Watering of commercial livestock • Ingredient in commercial food preparation • Supply for commercial aquaculture • Supply for a major or designated water recreation area, excluding drinking water use	0		— none identified in SSI
Sum of Targets T=	3786		

SI TABLE 6 (From HRS TABLE 3-12): VALUES FOR POTENTIAL CONTAMINATION GROUND WATER TARGET POPULATIONS

SI Table 6a: Other Than Karst Aquifers

Distance from Site	Pop.	Nearest Well (choose highest)	Population Served by Wells within Distance Category												Pop. Value	Ref.
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1000	1001 to 3000	3001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000		
0 to $\frac{1}{4}$ mile		20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455		
$>\frac{1}{4}$ to $\frac{1}{2}$ mile		18	2	11	33	102	324	1,013	3,233	10,122	32,325	101,213	323,243	1,012,122		
$>\frac{1}{2}$ to 1 mile		9	1	5	17	52	167	523	1,669	5,224	16,684	52,239	166,835	522,385		
> 1 to 2 miles		5	0.7	3	10	30	94	294	939	2,939	9,385	29,384	93,845	293,842		
> 2 to 3 miles		3	0.5	2	7	21	68	212	678	2,122	6,778	21,222	67,777	212,219		
>3 to 4 miles		2	0.3	1	4	13	42	131	417	1,306	4,171	13,060	41,709	130,596		
Nearest Well =														Sum =		

TABLE 3-1
GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Likelihood of Release to an Aquifer	Maximum Value	Value Assigned	
1.	Observed Release	550	____	
2.	Potential to Release			
	2a. Containment	10	10	
	2b. Net Precipitation	10	3	
	2c. Depth to Aquifer	5	3	
	2d. Travel Time	35	15	
	2e. Potential to Release [lines 2a x (2b + 2c + 2d)]	500	210	
3.	Likelihood of Release (higher of lines 1 and 2e)	550		210 ←
	Waste Characteristics			
4.	Toxicity/Mobility	a	____	
5.	Hazardous Waste Quantity	a	____	
6.	Waste Characteristics	100		____
	Targets			
7.	Nearest Well	50	____	
8.	Population			
	8a. Level I Concentrations	b	____	
	8b. Level II Concentrations	b	____	
	8c. Potential Contamination	b	____	
	8d. Population (lines 8a + 8b + 8c)	b	____	
9.	Resources	5	____	
10.	Wellhead Protection Area	20	____	
11.	Targets (lines 7 + 8d + 9 + 10)	b		____
	Ground Water Migration Score for an Aquifer			
12.	Aquifer Score [(lines 3 x 6 x 11)/82,500][c]	100		____
	Ground Water Migration Pathway Score			
13.	Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated)[c]	100		____

[a]Maximum value applies to waste characteristics category.
[b]Maximum value not applicable.
[c]Do not round to nearest integer.

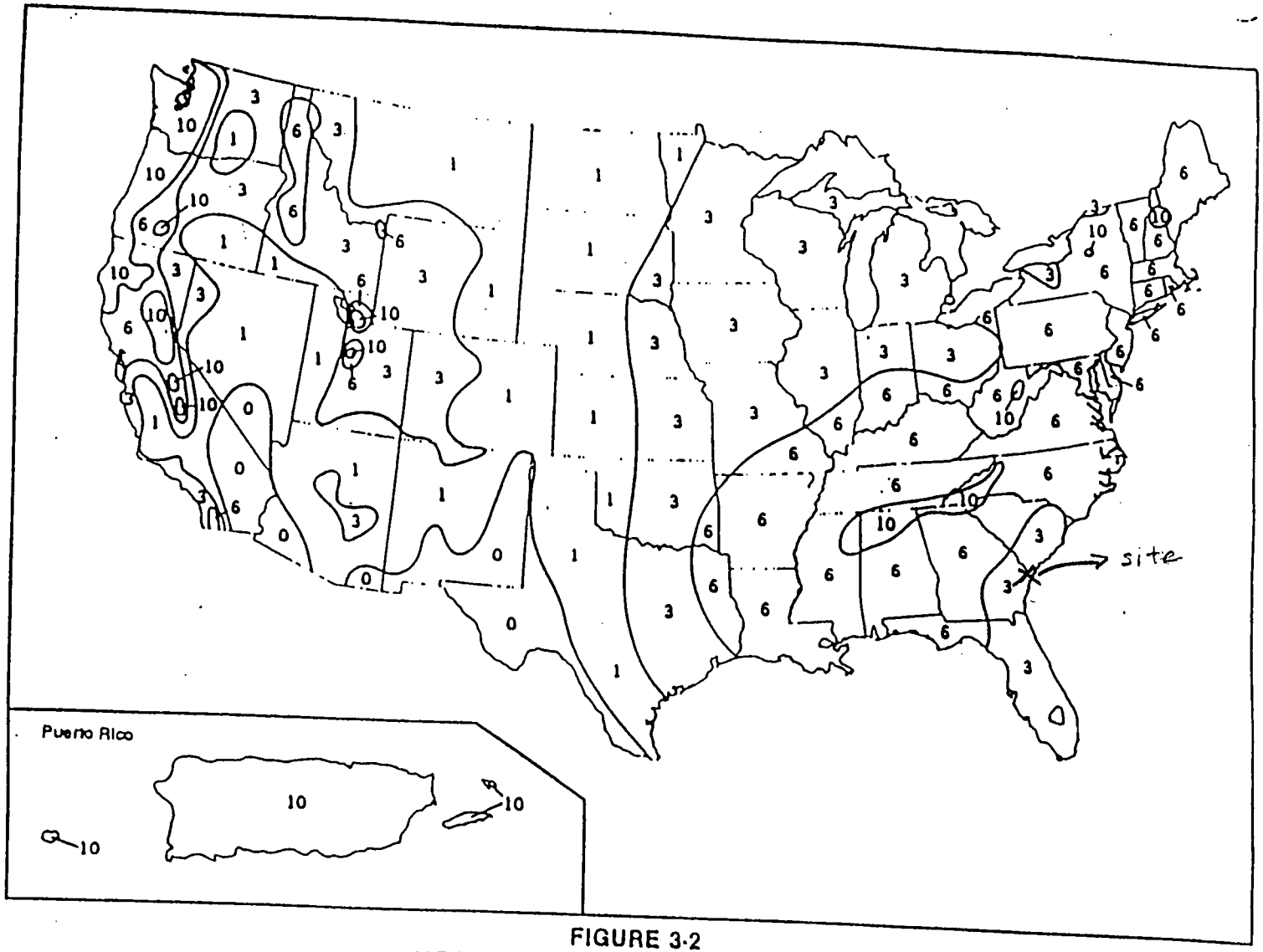

FIGURE 3-2
NET PRECIPITATION FACTOR VALUES

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CONFIDENTIAL

CONFIDENTIAL

AQUIFER BEING EVALUATED
- Floridan aquifer system
- attached geology write-up

TABLE 3-5
DEPTH TO AQUIFER FACTOR VALUES

Depth To Aquifer[a] (feet)	Assigned Value
Less than or equal to 25	5
Greater than 25 to 250	(3)
Greater than 250	1

[a]Use depth of all layers between the hazardous substances and aquifer. Assign a thickness of 0 feet to any karst aquifer that underlies any portion of the sources at the site.

TABLE 3-6
HYDRAULIC CONDUCTIVITY OF GEOLOGIC MATERIALS

Type of Macerial	Assigned Hydraulic Conductivity[a] (cm/sec)
Clay; low permeability till (compact unfractured till); shale; unfractured metamorphic and igneous rocks	10^{-8}
Silt; loesses; silty clays; sediments that are predominantly silts; moderately permeable till (fine-grained, unconsolidated till, or compact till with some fractures); low permeability limestones and dolomites (no karst); low permeability sandstone; low permeability fractured igneous and metamorphic rocks	10^{-6}
Sands; sandy silts; sediments that are predominantly sand; highly permeable till (coarse-grained, unconsolidated or compact and highly fractured); peat; moderately permeable limestones and dolomites (no karst); moderately permeable sandstone; moderately permeable fractured igneous and metamorphic rocks	10^{-4}
Gravel; clean sand; highly permeable fractured igneous and metamorphic rocks; permeable basalt; karst limestones and dolomites	10^{-2}

[a]Do not round to nearest integer.

ESTIMATED VALUE.
DJG
Dynamac staff geologist

ST C-16b

TABLE 3-7
TRAVEL TIME FACTOR VALUES[a]

Hydraulic Conductivity (cm/sec)	Thickness of Lowest Hydraulic Conductivity Layer(s)[b] (feet)			
	Greater than 3 to 5	Greater than 5 to 100	Greater than 100 to 500	Greater than 500
Greater than or equal to 10^{-3}	35	35	35	25
Less than 10^{-3} to 10^{-5}	35	25	15	15
Less than 10^{-5} to 10^{-7}	15	15	5	5
Less than 10^{-7}	5	5	1	1

[a]If depth to aquifer is 10 feet or less or if, for the interval being evaluated, all layers that underlie a portion of the sources at the site are karst, assign a value of 35.

[b]Consider only layers at least 3 feet thick. Do not consider layers or portions of layers within the first 10 feet of the depth to the aquifer.

- Metro Waste Landfill is located approximately 4 miles southeast of Union Camp Corporation - topo map

Groundwater Migration Pathway

The Metro Waste Landfill is located in the Coastal Lowlands topographic division of the Southeast Coastal Plain physiographic province of Georgia. The terrain in the Coastal Lowlands topographic division consists of barrier islands, marshes, level plains and a series of terraces. Elevation in the coastal lowlands range from sea level to 100 feet above mean sea level (msl) (Ref. 28, p. D6). The elevation at the site is approximately 17 feet (5 meters) above msl (Ref. 1).

Geologic units which underlie the Metro Waste Landfill facility, listed in descending stratigraphic order, include: undifferentiated post-Miocene-age deposits, the Hawthorn Group, the Suwannee Limestone, the Ocala Limestone, the Gosport Sand equivalent, the Lisbon Formation and the Tallahatta Formation (Ref. 28, plate 4, table 2). The undifferentiated post-Miocene-age deposits are composed of sand, gravel, clay and marl (Ref. 28, table 2). These deposits are approximately 50 feet thick in the facility area (Refs. 28, table 2; 29, plate 14). The Hawthorn Group consists of marl, clay, sand and dolomite interbedded with phosphatic sandy clay and sandy dolomite (Ref. 28, table 2). The Hawthorn Group is approximately 100 feet thick (Ref. 29, plate 13). The Suwannee Limestone ranges from a fossiliferous limestone to a dense, calcitized, unfossiliferous limestone (Ref. 28, table 2). The Suwannee Limestone is approximately 80 feet thick (Ref. 28, plate 4). The Ocala Limestone consists of a fossiliferous, recrystallized, porous limestone containing large solution cavities (Ref. 28, table 2). The thickness of the Ocala Limestone is approximately 350 feet (Refs. 28, table 2; 29, plate 9). The Gosport Sand equivalent consists of calcareous sand or sandy limestone that is glauconitic, sandy, clayey, fossiliferous marl. The Tallahatta Formation is an interbedded glauconitic sand and shale, that grades to a glauconitic argillaceous and sandy fossiliferous limestone (Ref. 28, table 2). The combined thickness of the Gosport Sand equivalent, the Lisbon Formation and the Tallahatta Formation ranges from 500 to 600 feet (Refs. 28, table 2; 29, plate 7).

There are two major aquifers in the Savannah area: a surficial aquifer and the Floridan Aquifer system. The surficial aquifer is composed of the undifferentiated post-Miocene-age deposits (Ref. 28, plate 4). Groundwater in the surficial aquifer is generally under unconfined conditions, and the water level fluctuates seasonally, corresponding to seasonal variation in precipitation and evaporation. The surficial aquifer is recharged by the infiltration of rainwater, and is generally in communication with water from lakes, streams and marshes (Ref. 28, p. D18).

In the Savannah area, the surficial aquifer is separated from the Floridan Aquifer system by the confining beds of the Hawthorn Group. The top of the Floridan Aquifer system occurs approximately 150 feet below land surface (bls) in the Savannah area (Ref. 28, plate 4). The Floridan Aquifer system can be divided into upper and lower permeable zones referred to as the Upper and Lower Floridan Aquifers (Refs. 28, p. D16, plate 4; 29, p. B47). The Upper Floridan Aquifer consists of permeable beds of the Suwannee Limestone and the Ocala Limestone (Ref. 28, p. D21, Table 2, plate 4). Secondary permeability, which was developed by the migration of groundwater along bedding planes, joints, fractures and other zones of weakness, has made the Ocala Limestone extremely permeable (Ref. 28, p. D24). In the Savannah area, the Upper Floridan Aquifer consists primarily of three permeable zones separated by locally confining units (Ref. 28, plate 4). The geologic units of the Upper Floridan Aquifer have a combined thickness which ranges from approximately 500 to 600 feet (Ref. 28, plate 4). The Upper and Lower Floridan Aquifers are separated by a middle Eocene-age semiconfining unit (Refs. 28, plate 4; 29, p. B47). The Lower Floridan Aquifer consists of permeable beds in the Gosport Sand equivalent and part of the Lisbon Formation. The Lower Floridan Aquifer is approximately 200 feet thick (Ref. 28, plate 4, table 2). The Floridan Aquifer system is confined below by the low-permeability beds that occur in the middle of the Lisbon Formation (Refs. 28, table 2; 30, p. 23). In the facility area, the Lower Floridan Aquifer responds to pumping from the Upper Floridan Aquifer. This response is indicated by the similarity, over time, of water levels observed in the Upper and Lower Floridan Aquifers. This suggests that the Upper and Lower Floridan Aquifers are hydrologically connected in the area (Ref. 28, p. D23).

Potable water for the area is supplied by a series of community and municipal wells. The nearest private well is located across the street from the landfill, approximately 300 feet from the landfill (Ref. 27, p. 10). The population using community and municipal wells is shown in Table 4.

23. Joseph T. Surowiec, Environmental Specialist, Municipal Solid Waste Control Unit, Municipal Solid Waste Control Program, Georgia Department of Natural Resources, Environmental Protection Division, letter with attachment to C. Russell Gaskill, Executive Officer, Metropolitan Waste and Refuse, Inc., April 29, 1977. Subject: Inspection report dated April 21, 1977.

24. Disposal Site Evaluation Report (Landfill) for Metro Waste Landfill, Savannah, Chatham County, Georgia. Inspected by Joseph T. Surowiec, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, June 22, 1977.

25. Disposal Site Evaluation Report (Landfill) for Metro Waste Landfill, Savannah, Chatham County, Georgia. Inspected by Roy Baggett, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, September 13, 1977.

26. Trip Report to Metro Waste Landfill, February 20, 1985. Filed by Johnny Morgan, Environmental Specialist, Georgia Department of Natural Resources, Environmental Protection Division, April 9, 1985.

27. NUS Corporation Superfund Division, Final Screening Site Inspection, Phase II Report for Metro Waste Landfill, Savannah, Chatham County, Georgia, Revision 0, prepared under TDD No. F4-8809-08 for the Waste Management Division of the EPA (February 4, 1991).

28. Richard E. Krause and Robert B. Randolph, Hydrology of the Floridan Aquifer System in Southeast Georgia and Adjacent Parts of Florida and South Carolina, U.S. Geological Survey Professional Paper 1403-D (Washington, D.C.: GPO, 1989) excerpt, 12 pages with attachments.

29. James A. Miller, Hydrogeologic Framework of the Floridan Aquifer System in Florida and in Parts of Georgia, Alabama, and South Carolina, U.S. Geological Survey Professional Paper 1403-B, (Washington, D.C.: GPO, 1986) excerpt, 5 pages with attachments.

30. Harlan B. Counts and Ellis Donsky Salt-Water Encroachment Geology and Ground-Water Resources of Savannah Area, Georgia and South Carolina, Geological Survey Water-supply Paper 1611 (Washington D.C.: GPO , 1963) excerpt, 6 pages.

31. United States Department of Agriculture, Soil Conservation Service, Soil Survey of Bryan and Chatham Counties, Georgia (March, 1974) excerpt, 2 pages with 4 attachments.

32. Len Dangerfield, FOIA Coordinator, Water Management Division, United States Environmental Protection Agency, Region IV, letter with attachment to Susan Rusher, Site Manager, Dynamac Corporation, March 31, 1993. Subject: 4-RIN-00834-93.

33. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States (Atlanta, Georgia, 1992), excerpt 17 pages.

34. U.S. Environmental Protection Agency, Graphical Exposure Modeling System (GEMS) Data Base, compiled from the U.S. Bureau of the Census data (1980).

35. U.S. Department of Commerce, Proof Copy of table generated for 1990 CPH-1: Summary Population and Housing Characteristics, issued by Bureau of the Census (April 1991), excerpt.

36. U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory map for Garden City, Georgia (1981). 1 map.

~~21~~ C-16 H

SI TABLE 6 (From HRS TABLE 3-12): VALUES FOR POTENTIAL CONTAMINATION GROUND WATER TARGET POPULATIONS (continued)

SI Table 6b: Karst Aquifers

WATE ELL ULATION	Distance from Site	Pop.	Nearest Well (choose highest)	Population Served by Wells within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1000	1001 to 3000	3001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000	Pop. Value	Ref.
–	0 to $\frac{1}{4}$ mile	0	20	4	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455	0	
–	> $\frac{1}{4}$ to $\frac{1}{2}$ mile	0	20	2	11	33	102	324	1,013	3,233	10,122	32,325	101,213	323,243	1,012,122	0	
C-17	> $\frac{1}{2}$ to 1 mile	7,528 ☆	20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227	2,607	
3	> 1 to 2 miles	2,964 ☆	20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227	817	
11	> 2 to 3 miles	24,158 ☆	20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227	8,163	
75	>3 to 4 miles	30,894 ☆	20	2	9	26	82	261	817	2,607	8,163	26,068	81,623	260,680	816,227	26,068	
Nearest Well =			20												Sum =	37,655	

÷10 = 3,765.5 ® 3,766

– Floridan aquifer system evaluated

☆ FERDS printout, pp. 2-4, 102-104, 156, 159, 196 used for all populations with the ~~exceptio~~ addition of one private well to the 2 to 3-mile radius for Chatham County

☆☆ The SSI Report identified a private well located approximately 2.4 miles northwest of the landfill (SSI, p. 9). This one private well was multiplied by the 1990 U.S. Census Bureau population per household value of 2.59 persons to obtain the value of 3 people which was added to the population of 24,152 obtained from the FERDS printout

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GROUND WATER PATHWAY WORKSHEET (concluded)

WASTE CHARACTERISTICS	Score	Data Type	Does not Apply
8. If any Actual Contamination Targets exist for the aquifer or overlying aquifers, assign the calculated hazardous waste quantity score or a score of 100, whichever is greater; if no Actual Contamination Targets exist, assign the hazardous waste quantity score calculated for sources available to migrate to ground water.	10		+ see page C-7 of worksheets
9. Assign the highest ground water toxicity/mobility value from SI Table 3 or 4.	100		
10. Multiply the ground water toxicity/mobility and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below: (from HRS Table 2-7)			
WC =	6		

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 or greater	100

Multiply LR by T and by WC. Divide the product by 82,500 to obtain the ground water pathway score for each aquifer. Select the highest aquifer score. If the pathway score is greater than 100, assign 100.

GROUND WATER PATHWAY SCORE: $\frac{LR \times T \times WC}{82,500}$ = 57.82 (Maximum of 100)

$$\frac{210 \times 3,786 \times 6}{82,500} = 57.82$$

SI TABLE 7: SURFACE WATER OBSERVED RELEASE SUBSTANCES

Sample ID	and concentrations Hazardous Substance	Bckgrd. Conc.	Toxicity/ Persistence	Toxicity/ Persis./ Bioaccum	Ecotoxicity/ Persis/ Ecobioaccum	References
	Highest Values					

- no sediment or surface water samples collected from a perennial water body during SI

SI TABLE 8: SURFACE WATER DRINKING WATER ACTUAL CONTAMINATION TARGETS

Intake ID: _____ Sample Type _____ Level I _____ Level II _____ Population Served _____ References _____ = SI + topo

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

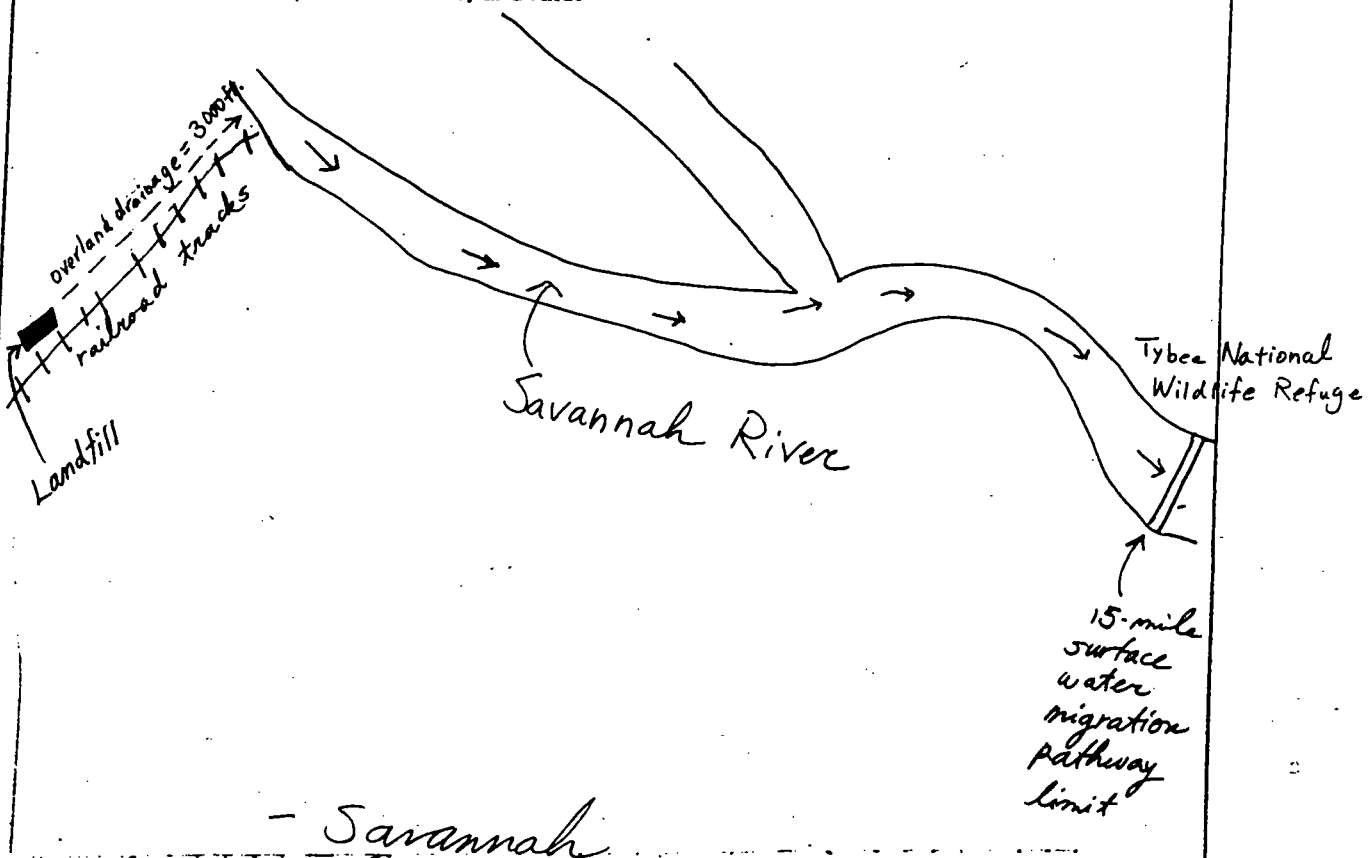
- no OR to surface water was assumed due to the distance to SW, 3000 feet

Intake ID: _____ Sample Type _____ Level I _____ Level II _____ Population Served _____ References _____

Sample ID	Hazardous Substance	Conc. (µg/L)	Benchmark Conc. (MCL or MCLG)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

SURFACE WATER PATHWAY

Sketch of the Surface Water Migration Route:
Label all surface water bodies. Include runoff route and drainage direction, probable point of entry, and 15-mile target distance limit. Mark sample locations, intakes, fisheries, and sensitive environments. Indicate flow directions, tidal influence, and rate.



- Savannah River is a documented fishery

SURFACE WATER PATHWAY

Surface Water Observed Release Substances Summary Table

On SI Table 7, list the hazardous substances detected in surface water samples for the watershed, which can be attributed to the site. Include only those substances in observed releases (direct observation) or with concentration levels significantly above background levels. Obtain toxicity, persistence, bioaccumulation potential, and ecotoxicity values from SCDM. Enter the highest toxicity/persistence, toxicity/persistence/bioaccumulation, and ecotoxicity/persistence/ecobioaccumulation values in the spaces provided.

- TP = *Toxicity x Persistence*
- TPB = TP x bioaccumulation
- ETPB = EP x bioaccumulation (EP = ecotoxicity x persistence)

Drinking Water Actual Contamination Targets Summary Table

For an observed release at or beyond a drinking water intake, on SI Table 8 enter each hazardous substance by sample ID and the detected concentration. For surface water sediment samples detecting a hazardous substance at or beyond an intake, evaluate the intake as Level II contamination. Obtain benchmark, cancer risk, and reference dose concentrations for each substance from SCDM. For MCL and MCLG benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages of the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the population served by the intake as a Level I target. If the percentages are less than 100% or all are N/A, evaluate the population served by the intake as a Level II target.

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT WORKSHEET

LIKELIHOOD OF RELEASE– OVERLAND/FLOOD MIGRATION	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.	0		SI
2. POTENTIAL TO RELEASE: Distance to surface water: 3000 (feet) If sampling data do not support a release to surface water in the watershed, use the table below to assign a score from the table below based on distance to surface water and flood frequency.			

Distance to surface water <2500 feet	500
Distance to surface water >2500 feet, and:	
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

Optionally, evaluate surface water potential to release according to HRS Section 4.1.2.1.2

– see attached pot to release values

LR = 200

LIKELIHOOD OF RELEASE GROUND WATER TO SURFACE WATER MIGRATION	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to surface water in the watershed, assign a score of 550. Record observed release substances on SI Table 7.			
NOTE: Evaluate ground water to surface water migration only for a surface water body that meets all of the following conditions:			
1) A portion of the surface water is within 1 mile of site sources having a containment factor greater than 0.			
2) No aquifer discontinuity is established between the source and the above portion of the surface water body.			
3) The top of the uppermost aquifer is at or above the bottom of the surface water.			
Elevation of top of uppermost aquifer _____			
Elevation of bottom of surface water body _____			
2. POTENTIAL TO RELEASE: Use the ground water potential to release. Optionally, evaluate surface water potential to release according to HRS Section 3.1.2.			

LR =

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT WORKSHEET (CONTINUED)

DRINKING WATER THREAT TARGETS	Score	Data Type	Refs
Record the water body type, flow, and number of people served by each drinking water intake within the target distance limit in the watershed. If there is no drinking water intake within the target distance limit, assign 0 to factors 3, 4, and 5. Intake Name | Water Body Type | Flow | People Served _____ | _____ | _____ | _____ _____ | _____ | _____ | _____ _____ | _____ | _____ | _____ Are any intakes part of a blended system? Yes _____ No _____ If yes, attach a page to show apportionment calculations. 3. ACTUAL CONTAMINATION TARGETS: If analytical evidence indicates a drinking water intake has been exposed to a hazardous substance from the site, list the intake name and evaluate the factor score for the drinking water population (SI Table 8). _____ . _____ Level I: _____ people x 10 = _____ Level II: _____ people x 1 = _____ **Total =**	–	not surface water intakes identified in the SI, SI, p. 5	
4. POTENTIAL CONTAMINATION TARGETS: Determine the number of people served by drinking water intakes for the watershed that have not been exposed to a hazardous substance from the site. Assign the population values from SI Table 9. Sum the values and multiply by 0.1.	0		
5. NEAREST INTAKE: Assign a score of 50 for any Level I Actual Contamination Drinking Water Targets for the watershed. Assign a score of 45 if there are Level II targets for the watershed, but no Level I targets. If no Actual Contamination Drinking Water Targets exist, assign a score for the intake nearest the PPE from SI Table 9. If no drinking water intakes exist, assign 0.	0		
6. RESOURCES: Assign a score of 5 if one or more surface water resource applies; assign 0 if none applies. • Irrigation (5 acre minimum) of commercial food crops or commercial forage crops • Watering of commercial livestock • Ingredient in commercial food preparation • Major or designated water recreation area, excluding drinking water use	5		
SUM OF TARGETS T=	0		

TABLE 4-1
SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor Categories and Factors	Maximum Value	Value Assigned	
DRINKING WATER THREAT			
Likelihood of Release			
1. Observed Release	550	0	
2. Potential to Release by Overland Flow			
2a. Containment	10	10	
2b. Runoff	25	7	
2c. Distance to Surface Water	25	6	
2d. Potential to Release by Overland Flow (lines 2a x [2b + 2c])	500	130	
3. Potential to Release by Flood			
3a. Containment (Flood)	10	10	
3b. Flood Frequency	50	7	
3c. Potential to Release by Flood (lines 3a x 3b)	500	70	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	200	
5. Likelihood of Release (higher of lines 1 and 4)	550		200
Waste Characteristics			
6. Toxicity/Persistence	a		
7. Hazardous Waste Quantity	a		
8. Waste Characteristics	100		
Targets			
9. Nearest Intake	50		
10. Population			
10a. Level I Concentrations	b		
10b. Level II Concentrations	b		
10c. Potential Contamination	b		
10d. Population (lines 10a + 10b + 10c)	b		
11. Resources	5		

TABLE 4-3
DRAINAGE AREA VALUES

Drainage Area (acres)	Assigned Value
Less than 50	1
50 to 250	2
Greater than 250 to 1,000	3
Greater than 1,000	4

(3) - topo maps

TABLE 4-4
SOIL GROUP DESIGNATIONS

Surface Soil Description	Soil Group Designation
Coarse-textured soils with high infiltration rates (for example, sands, loamy sands)	A
Medium-textured soils with moderate infiltration rates (for example, sandy loams, loams)	B
Moderately fine-textured soils with low infiltration rates (for example, silty loams, silts, sandy clay loams)	C
Fine-textured soils with very low infiltration rates (for example, clays, sandy clays, silty clay loams, clay loams, silty clays); or impermeable surfaces (for example, pavement)	D

SI Report, p. 1

TABLE 4-5
RAINFALL/RUNOFF VALUES

2-Year, 24-Hour Rainfall (inches)	Soil Group Designation			
	A	B	C	D
Less than 1.0	0	0	2	3
1.0 to less than 1.5	0	1	2	3
1.5 to less than 2.0	0	2	3	4
2.0 to less than 2.5	1	2	3	4
2.5 to less than 3.0	2	3	4	4
3.0 to less than 3.5	2	3	4	5
3.5 or greater	3	4	5	6

- 2- year 24- hour rainfall map

TABLE 4-6
RUNOFF FACTOR VALUES

Drainage Area Value	Rainfall/Runoff Value						
	0	1	2	3	4	5	6
1	0	0	0	1	1	1	1
2	0	0	1	1	2	3	4
3	0	0	1	3	7	11	15
4	0	1	2	7	17	25	25

TABLE 4-7
DISTANCE TO SURFACE WATER FACTOR VALUES

Distance	Assigned Value
Less than 100 feet	25
100 feet to 500 feet	20
Greater than 500 feet to 1,000 feet	16
Greater than 1,000 feet to 2,500 feet	9
Greater than 2,500 feet to 1.5 miles	6
Greater than 1.5 miles to 2 miles	3

TABLE 4-9
FLOOD FREQUENCY FACTOR VALUES

Floodplain Category	Assigned Value
Source floods annually	50
Source in 10-year floodplain	50
Source in 100-year floodplain	25
Source in 500-year floodplain	(7)
None of above	0

- assumed
- no floodplain map available

SI TABLE 9 (From HRS Table 4-14): DILUTION-WEIGHTED POPULATION VALUES FOR POTENTIAL CONTAMINATION FOR SURFACE WATER MIGRATION PATHWAY

Type of Surface Water Body	Pop.	Nearest Intake	Number of people									Pop. Value
			0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	
Minimal Stream (<10 cfs)		20	0	4	17	53	164	522	1,633	5,214	16,325	
Small to moderate stream (10 to 100 cfs)		2	0	0.4	2	5	16	52	163	521	1,633	
Moderate to large stream (> 100 to 1,000 cfs)		0	0	0.04	0.2	0.5	2	5	16	52	163	
Large Stream to river (>1,000 to 10,000 cfs)		0	0	0.004	0.02	0.05	0.2	0.5	2	5	16	
Large River (> 10,000 to 100,000 cfs)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	~~16~~ 2	
Very Large River (>100,000 cfs)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Shallow ocean zone or Great Lake (depth < 20 feet)		0	0	0	0.002	0.005	0.02	0.05	0.2	0.5	2	
Moderate ocean zone or Great Lake (Depth 20 to 200 feet)		0	0	0	0	0.001	0.002	0.005	0.02	0.05	0.2	
Deep ocean zone or Great Lake (depth > 200 feet)		0	0	0	0	0	0.001	0.003	0.008	0.03	0.08	
3-mile mixing zone in quiet flowing river (≥ 10 cfs)		10	0	2	9	26	82	261	817	2,607	8,163	
	Nearest Intake =										Sum =	

References _____

SURFACE WATER PATHWAY

Human Food Chain Actual Contamination Targets Summary Table

On SI Table 10, list the hazardous substances detected in sediment, aqueous, sessile benthic organism tissue, or fish tissue samples (taken from fish caught within the boundaries of the observed release) by sample ID and concentration. Evaluate fisheries within the boundaries of observed releases detected by sediment or aqueous samples as Level II, if at least one observed release substance has a bioaccumulation potential factor value of 500 or greater (see SI Table 7). Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For FDAAL benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate this portion of the fishery as subject to Level I concentrations. If the percentages are less than 100% or all are N/A, evaluate the fishery as a Level II target.

Sensitive Environment Actual Contamination Targets Summary Table

On SI Table 11, list each hazardous substance detected in aqueous or sediment samples at or beyond wetlands or a surface water sensitive environment by sample ID. Record the concentration. If contaminated sediments or tissues are detected at or beyond a sensitive environment, evaluate the sensitive environment as Level II. Obtain benchmark concentrations from SCDM. For AWQC/AALAC benchmarks, determine the highest percentage of benchmark of the substances detected in aqueous samples. If benchmark concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage equals or exceeds 100%, evaluate that part of the sensitive environment subject to Level I concentrations. If the percentage is less than 100%, or all are N/A, evaluate the sensitive environment as Level II.

TABLE 4-14 (Concluded)

Type of Surface Water Body[b]	Number of People				
	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	3,000,001 to 10,000,000
Minimal stream (< 10 cfs)	52,137	163,246	521,360	1,632,455	5,213,590
Small to moderate stream (10 to 100 cfs)	5,214	16,325	52,136	163,245	521,359
Moderate to large stream (> 100 to 1,000 cfs)	521	1,633	5,214	16,325	52,136
Large stream to river (> 1,000 to 10,000 cfs)	52	163	521	1,632	5,214
Large river (> 10,000 to 100,000 cfs)	5	16	52	163	521
Very large river (> 100,000 cfs)	0.5	2	5	16	52
Shallow ocean zone or Great Lake (depth < 20 feet)	5	16	52	163	521
Moderate ocean zone or Great Lake (depth 20 to 200 feet)	0.5	2	5	16	52
Deep zone or Great Lake (depth > 200 feet)	0.3	1	3	8	26
3-mile mixing zone in quiet flowing river (≥ 10 cfs)	26,068	81,623	260,680	816,227	2,606,795

[a]Round the number of people to nearest integer. Do not round the assigned dilution-weighted population value to nearest integer.

[b]Treat each lake as a separate type of water body and assign it a dilution-weighted population value using the surface water body type with the same dilution weight from Table 4-13 as the lake. If drinking water is withdrawn from coastal tidal water or the ocean, assign a dilution-weighted population value to it using the surface water body type with the same dilution weight from Table 4-13 as the coastal tidal water or the ocean zone.

SI TABLE 10: HUMAN FOOD CHAIN ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Fishery ID: _____ Sample Type _____ Level I _____ Level II _____ References _____

Sample ID	Hazardous Substance	Conc. (mg/kg)	Benchmark Concentration (FDAAL)	% of Benchmark	Cancer Risk Concentration.	% of Cancer Risk Concentration	RfD	% of RfD
			Highest Percent		Sum of Percents		Sum of Percents	

SI TABLE 11: SENSITIVE ENVIRONMENT ACTUAL CONTAMINATION TARGETS FOR WATERSHED

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc.. (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
			Highest Percent		

- no surface water or sediment samples collected from a perennial surface water body

-SI

Environment ID: _____ Sample Type _____ Level I _____ Level II _____ Environment Value _____

Sample ID	Hazardous Substance	Conc.. (µg/L)	Benchmark Concentration (AWQC or AALAC)	% of Benchmark	References
			Highest Percent		

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SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT WORKSHEET

HUMAN FOOD CHAIN THREAT TARGETS	Score	Data Type	Refs

Record the water body type and flow for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a score of 0 at the bottom of this page.

Fishery Name Savanna River Water Body river Flow 10000 - 100,000 cfs
Species _____ Production _____ lbs/yr
Species _____ Production _____ lbs/yr

Fishery Name _____ Water Body _____ Flow _____ cfs
Species _____ Production _____ lbs/yr
Species _____ Production _____ lbs/yr

Fishery Name _____ Water Body _____ Flow _____ cfs
Species _____ Production _____ lbs/yr
Species _____ Production _____ lbs/yr

Rushon telecon 9/15/92 - stream flow

FOOD CHAIN INDIVIDUAL

Harrigan telecon 5/6/94 - fishing

7. ACTUAL CONTAMINATION FISHERIES:

If analytical evidence indicates that a fishery has been exposed to a hazardous substance with a bioaccumulation factor greater than or equal to 500 (SI Table 10), assign a score of 50 if there is a Level I fishery. Assign 45 if there is a Level II fishery, but no Level I fishery.

8. POTENTIAL CONTAMINATION FISHERIES:

If there is a release of a substance with a bioaccumulation factor greater than or equal to 500 to a watershed containing fisheries within the target distance limit, but there are no Level I or Level II fisheries, assign a score of 20.

If there is no observed release to the watershed, assign a value for potential contamination fisheries from the table below using the lowest flow at all fisheries within the target distance limit:

Lowest Flow	FCI Value
<10 cfs	20
10 to 100 cfs	2
>100 cfs, coastal tidal waters, oceans, or Great Lakes	(0)
3-mile mixing zone in quiet flowing river	10

FCI Value = _____

SUM OF TARGETS T = 0

SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT WORKSHEET

When measuring length of wetlands that are located on both sides of a surface water body, sum both frontage lengths. For a sensitive environment that is more than one type, assign a value for each type.

ENVIRONMENTAL THREAT TARGETS

	Score	Data Type	Refs

Record the water body type and flow for each surface water sensitive environment within the target distance (see SI Table 12). If there is no sensitive environment within the target distance limit, assign a score of 0 at the bottom of the page.

Environment Name	Water Body Type	Flow
		cfs
		cfs
		cfs
		cfs
		cfs

9. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: If sampling data or direct observation indicate any sensitive environment has been exposed to a hazardous substance from the site, record this information on SI Table 11, and assign a factor value for the environment (SI Tables 13 and 14).

Environment Name	Environment Type and Value (SI Tables 13 & 14)	Multiplier (10 for Level I, 1 for Level II)	Product
	75	x =	
		x =	
		x =	
		x =	
		Sum =	0

10. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS:

Flow	Dilution Weight (SI Table 12)	Environment Type and Value (SI Tables 13 & 14)	Pot. Cont.	Product
cfs	.0001 x	75 x	0.1 =	.00075
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
cfs	x	x	0.1 =	
		Sum =		.00075

T = 0

— U.S. Fish & Wildlife Services, Red Book 1992

— Tybee Island National Wildlife Refuge (topo map)

NOTE: The ranges of several federally and or/state-designated threatened and/or endangered species occur in Georgia; however, none of these species were located.

SI TABLE 13 (HRS TABLE 4-23): SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

SENSITIVE ENVIRONMENT	*ASSIGNED VALUE*
Critical habitat for Federal designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act *Sensitive Areas identified under the National Estuary Program or Near Coastal* Water Program of the Clean Water Act Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument (air pathway only) National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federal designated or proposed endangered or threatened species National Preserve *National or State Wildlife Refuge* Unit of Coastal Barrier Resources System Coastal Barrier (undeveloped) Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay, or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species within river reaches or areas in lakes or coastal tidal waters in which the fish spend extended periods of time Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding National river reach designated as recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management State designated Scenic or Wild River State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for the protection of maintenance of aquatic life under the Clean Water Act	5
Wetlands — See SI Table 14 (Surface Water Pathway) or SI Table 23 (Air Pathway)	

SI TABLE 14 (HRS TABLE 4-24): SURFACE WATER WETLANDS FRONTAGE VALUES

Total Length of Wetlands	Assigned Value
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

SI TABLE 12 (HRS Table 4-13): SURFACE WATER DILUTION WEIGHTS

Type of Surface Water Body		Assigned Dilution Weight
Descriptor	**Flow Characteristics**	
Minimal stream	< 10 cfs	1
Small to moderate stream	10 to 100 cfs	0.1
Moderate to large stream	> 100 to 1,000 cfs	0.01
Large stream to river	> 1,000 to 10,000 cfs	0.001
Large river	> 10,000 to 100,000 cfs	0.0001
Very large river	> 100,000 cfs	0.00001
Coastal tidal waters	Flow not applicable; depth not applicable	~~0.001~~ 0.0001
Shallow ocean zone or Great Lake	Flow not applicable; depth less than 20 feet	~~0.001~~ 0.0001
Moderate depth ocean zone or Great Lake	Flow not applicable; depth 20 to 200 feet	~~0.0001~~ 0.00001
Deep ocean zone or Great Lake	Flow not applicable; depth greater than 200 feet	0.000005
3-mile mixing zone in quiet flowing river	10 cfs or greater	0.5

SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	Score
~~14.~~ 11. If an Actual Contamination Target (drinking water, human food chain, or environmental threat) exists for the watershed, assign the calculated hazardous waste quantity score, or a score of 100, whichever is greater.	
~~15.~~ 12. Assign the highest value from SI Table 7 (observed release) or SI Table 3 (no observed release) for the hazardous substance waste characterization factors below. Multiply each by the surface water hazardous waste quantity score and determine the waste characteristics score for each threat.	

	Substance Value		HWQ		Product	WC Score (from Table) (Maximum of 100)
Drinking Water Threat Toxicity/Persistence	10,000	x	10	=	~~18~~ 5×10^{5}	18 (max = 100)
Food Chain Threat Toxicity/Persistence Bioaccumulation	5×10^{7}	x	10	=	5×10^{8}	100 (max = 1000)
Environmental Threat Ecotoxicity/Persistence/ Ecobioaccumulation	5×10^{6}	x	10	=	5×10^{7}	56 (max = 1000)

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 to <1E + 09	100
1E + 09 to <1E + 10	180
1E + 10 to <1E + 11	320
1E + 11 to <1E + 12	560
1E + 12 or greater	1000

SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score	Targets (T) Score	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score $\frac{LR \times T \times WC}{82,500}$
Drinking Water	200	5	1.8	(maximum of 100) 0.22
Human Food Chain	200	0	100	(maximum of 100) 0
Environmental	200	0.00075	56	(maximum of 60) 0

SURFACE WATER PATHWAY SCORE (Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

(maximum of 100) **0.22**

SOIL EXPOSURE PATHWAY

If there is no observed contamination (e.g., ground water plume with no known surface source), do not evaluate the soil exposure pathway. Discuss evidence for no soil exposure pathway.

Soil Exposure Resident Population Targets Summary

For each property (duplicate page 35 as necessary):

If there is an area of observed contamination on the property and within 200 feet of a residence, school, or day care center, enter on Table 15 each hazardous substance by sample ID. Record the detected concentration. Obtain cancer risk, and reference dose concentrations from SCDM. Sum the cancer risk and reference dose percentages for the substances listed. If cancer risk or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate the residents and students as Level I. If both percentages are less than 100% or all are N/A, evaluate the targets as Level II.

SOIL EXPOSURE PATHWAY WORKSHEET
RESIDENT POPULATION THREAT

LIKELIHOOD OF EXPOSURE	Score	Data Type	Refs
1. OBSERVED CONTAMINATION: If evidence indicates presence of observed contamination (depth of 2 feet or less), assign a score of 550; otherwise, assign a 0. Note that a likelihood of exposure score of 0 results in a soil exposure pathway score of 0.		- waste sample collected from surface of landfill	- SI, p. 10
LE =	550		

TARGETS			
2. RESIDENT POPULATION: Determine the number of people living or attending school or day care on a property with an area of observed contamination and whose residence, school, or day care center, respectively, is on or within 200 feet of the area of observed contamination. Level I: _____ people x 10 = _____ Level II: _____ people x 1 = _____ Sum =	0		
3. RESIDENT INDIVIDUAL: Assign a score of 50 if any Level I resident population exists. Assign a score of 45 if there are Level II targets but no Level I targets. If no resident population exists (*i.e.*, no Level I or Level II targets), assign 0 (HRS Section 5.1.3).	0		- SI; top
4. WORKERS: Assign a score from the table below for the total number of workers at the site and nearby facilities with areas of observed contamination associated with the site.	5		

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	15

# of workers not known - 1 to 100 assumed due to the location of the landfill at an active facility

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value for each terrestrial sensitive environment (SI Table 16) in an area of observed contamination.			
Terrestrial Sensitive Environment Type	Value		
_____	_____		
_____	_____		
_____	_____		
_____	_____		
Sum =	0		
6. RESOURCES: Assign a score of 5 if any one or more of the following resources is present on an area of observed contamination at the site; assign 0 if none applies. • Commercial agriculture • Commercial silviculture • Commercial livestock production or commercial livestock grazing	0		
Total of Targets T=	5		

— no resident population
SSI
• topo

SI TABLE 15: SOIL EXPOSURE RESIDENT POPULATION TARGETS

Residence ID: ______________ Level I ______ Level II ______ Population ______________

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: ______________ Level I ______ Level II ______ Population ______________

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

Residence ID: ______________ Level I ______ Level II ______ Population ______________

Sample ID	Hazardous Substance	Conc. (mg/kg)	Cancer Risk Concentration	% of Cancer Risk Conc.	RfD	% of RfD	Toxicity Value	References
			Highest Percent		Sum of Percents		Sum of Percents	

SI TABLE 16 (HRS TABLE 5-5): SOIL EXPOSURE PATHWAY TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

TERRESTRIAL SENSITIVE ENVIRONMENT	*ASSIGNED VALUE*
Terrestrial critical habitat for Federal designated endangered or threatened species National Park Designated Federal Wilderness Area National Monument	100
Terrestrial habitat known to be used by Federal designated or proposed threatened or endangered species National Preserve (terrestrial) National or State terrestrial Wildlife Refuge Federal land designated for protection of natural ecosystems Administratively proposed Federal Wilderness Area Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	75
Terrestrial habitat used by State designated endangered or threatened species Terrestrial habitat used by species under review for Federal designated endangered or threatened status	50
State lands designated for wildlife or game management State designated Natural Areas Particular areas, relatively small in size, important to maintenance of unique biotic communities	25

SOIL EXPOSURE PATHWAY WORKSHEET
NEARBY POPULATION THREAT

LIKELIHOOD OF EXPOSURE		Score	Data Type	Ref.
7. Attractiveness/Accessibility (from SI Table 17 or HRS Table 5-6)	Value 0 5	SSI Report → facility is fenced & guarded		
Area of Contamination (from SI Table 18 or HRS Table 5-7)	Value 40			
Likelihood of Exposure (from SI Table 19 or HRS Table 5-8)				
	LE =	0 5		

note: if there is no area of observed contamination, LE = 0.

TARGETS	Score	Data Type	Ref.
8. Assign a score of 0 if Level I or Level II resident individual has been evaluated or if no individuals live within 1/4 mile travel distance of an area of observed contamination. Assign a score of 1 if nearby population is within 1/4 mile travel distance and no Level I or Level II resident population has been evaluated.	0	— topo — GEMS	
9. Determine the population within 1 mile travel distance that is not exposed to a hazardous substance from the site (*i.e.*, properties that are not determined to be Level I or Level II); record the population for each distance category in SI Table 20 (HRS Table 5-10). Sum the population values and multiply by 0.1.	1	— GEMS printout*	
T =	1		

* NOTE: Landfill is located in an industrialized area (topo; SSI Report). GEMS printout indicates no population w/in a ¼-mile radius, which appears to correspond to the information obtained from the topo & SSI Report.

SI TABLE 19 (HRS TABLE 5-8): NEARBY POPULATION LIKELIHOOD OF EXPOSURE FACTOR VALUES

AREA OF CONTAMINATION FACTOR VALUE	ATTRACTIVENESS/ACCESSIBILITY FACTOR VALUE						
	100	75	50	25	10	5	0
100	500	500	375	250	125	50	0
80	500	375	250	125	50	25	0
60	375	250	125	50	25	5	0
40	250	125	50	25	5	5	0
20	125	50	25	5	5	5	0
5	50	25	5	5	5	5	0

SI TABLE 20 (HRS TABLE 5-10): DISTANCE-WEIGHTED POPULATION VALUES FOR NEARBY POPULATION THREAT

Travel Distance Category (miles)	Pop.	Number of people within the travel distance category												Pop. Value
		0	1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,001	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	
Greater than 0 to $\frac{1}{4}$	0	0	0.1	0.4	1.0	4	13	41	130	408	1,303	4,081	13,034	0
Greater than $\frac{1}{4}$ to $\frac{1}{2}$	28	0	0.05	0.2	0.7	2	7	20	65	204	652	2,041	6,517	02
Greater than $\frac{1}{2}$ to 1	2,773	0	0.02	0.1	0.3	1	3	10	33	102	326	1,020	3,258	10

Reference(s) _____ Sum = 10.2 → 10

× 0.1

= 1

SI TABLE 17 (HRS TABLE 5-6): ATTRACTIVENESS/ACCESSIBILITY VALUES

Area of Observed Contamination	Assigned Value
Designated recreational area	100
Regularly used for public recreation (for example, vacant lots in urban area)	75
Accessible and unique recreational area (for example, vacant lots in urban area)	75
Moderately accessible (may have some access improvements–for example, gravel road) with some public recreation use	50
Slightly accessible (for example, extremely rural area with no road improvement) with some public recreation use	25
Accessible with no public recreation use	10
Surrounded by maintained fence or combination of maintained fence and natural barriers	5
Physically inaccessible to public, with no evidence of public recreation use	0

SI TABLE 18 (HRS TABLE 5-7): AREA OF CONTAMINATION FACTOR VALUES

Total area of the areas of observed contamination (square feet)	Assigned Value
≤ to 5,000	5
> 5,000 to 125,000	20
> 125,000 to 250,000	40
> 250,000 to 375,000	60
> 375,000 to 500,000	80
> 500,000	100

CONFIDENTIAL

SOIL EXPOSURE PATHWAY WORKSHEET (concluded)

WASTE CHARACTERISTICS

10.	Assign the hazardous waste quantity score calculated for soil exposure HRS Section 5.1.2.2 and HRS Table 5-2.	10
11.	Assign the highest toxicity value for the soil exposure pathway from SI Table 3 or 15	10,000
12.	**Multiply the toxicity and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below:**	WC = 18

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 or greater	100

RESIDENT POPULATION THREAT SCORE:

(Likelihood of Exposure, Question 1;
Targets = Sum of Questions 2, 3, 4, 5, 6)

$\frac{L \times T \times WC}{82,500}$

$5 \times 5 \times 18$

0.6

NEARBY POPULATION THREAT SCORE:

(Likelihood of Exposure, Question 7;
Targets = Sum of Questions 8, 9)

$\frac{L \times T \times WC}{82,500}$

$5 \times 1 \times 18$

0

SOIL EXPOSURE PATHWAY SCORE:
Resident Population Threat + Nearby Population Threat $\div 82,500$

0.6 (Maximum of 100)

AIR PATHWAY

Air Pathway Observed Substances Summary Table

On SI Table 21, list the hazardous substances detected in air samples of a release from the site. Include only those substances with concentrations significantly greater than background levels. Obtain benchmark, cancer risk, and reference dose concentrations from SCDM. For NAAQS/NESHAPS benchmarks, determine the highest percentage of benchmark obtained for any substance. For cancer risk and reference dose, sum the percentages for the substances listed. If benchmark, cancer risk, or reference dose concentrations are not available for a particular substance, enter N/A for the percentage. If the highest benchmark percentage or the percentage sum calculated for cancer risk or reference dose equals or exceeds 100%, evaluate targets in the distance category from which the sample was taken and any closer distance categories as Level I. If the percentages are less than 100% or all are N/A, evaluate targets in that distance category and any closer distance categories that are not Level I as Level II.

SI TABLE 21: AIR PATHWAY OBSERVED RELEASE SUBSTANCES

- no air samples were collected during the SSI - SSI Report

Sample ID: _____ Level I ____ Level II ____ Distance from Sources (mi) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Gaseous Particulate	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I ____ Level II ____ Distance from Sources (ml) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Toxicity/ Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

Sample ID: _____ Level I ____ Level II ____ Distance from Sources (ml) ____ References _____

Hazardous Substance	Conc. (µg/m³)	Toxicity/ Mobility	Benchmark Conc. (NAAQS or NESHAPS)	% of Benchmark	Cancer Risk Conc.	% of Cancer Risk Conc.	RfD	% of RfD
	Highest Toxicity/ Mobility		Highest Percent		Sum of Percents		Sum of Percents	

AIR PATHWAY WORKSHEET

LIKELIHOOD OF RELEASE	Score	Data Type	Refs
1. OBSERVED RELEASE: If sampling data or direct observation support a release to air, assign a score of 550. Record observed release substances on SI Table 21.	0		
2. POTENTIAL TO RELEASE: If sampling data do not support a release to air, assign a score of 500. Optionally, evaluate air migration gaseous and particulate potential to release (HRS Section 6.1.2).	500		— SSI Report
LR =	500		

TARGETS			
3. ACTUAL CONTAMINATION POPULATION: Determine the number of people within the target distance limit subject to exposure from a release of a hazardous substance to the air. a) Level I: _____ people x 10 = _____ b) Level II: _____ people x 1 = _____ Total =	0		— SSI Report
4. POTENTIAL TARGET POPULATION: Determine the number of people within the target distance limit not subject to exposure from a release of a hazardous substance to the air, and assign the total population score from SI Table 22. Sum the values and multiply the sum by 0.1.	23		— GEMS
5. NEAREST INDIVIDUAL: Assign a score of 50 if there are any Level I targets. Assign a score of 45 if there are Level II targets but no Level I targets. If no Actual Contamination Population exists, assign the Nearest Individual score from SI Table 22.	20		— GEMS
6. ACTUAL CONTAMINATION SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (SI Table 13) and wetland acreage values (SI Table 23) for environments subject to exposure from the release of a hazardous substance to the air.	0		— SSI
7. POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS: Use SI Table 24 to evaluate sensitive environments not subject to exposure from a release.			— SSI; — Red Book* 1992
8. RESOURCES: Assign a score of 5 if one or more air resources apply within 1/2 mile of a source; assign a 0 if none applies. • Commercial agriculture • Commercial silviculture • Major or designated recreation area	0		
T =	43		

Sensitive Environment Type	Value
Wetland Acreage	**Value**

* Note: The ranges of several federally and/or state-designated endangered and/or threatened species occur within Georgia; however, none of these species were specifically

SI TABLE 23 (HRS TABLE 6-18): AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
< 1 acre	0
1 to 50 acres	25
> 50 to 100 acres	75
> 100 to 150 acres	125
> 150 to 200 acres	175
> 200 to 300 acres	250
> 300 to 400 acres	350
> 400 to 500 acres	450
> 500 acres	500

SI TABLE 24: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY POTENTIAL CONTAMINATION SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from SI Tables 13 and 20) 23	Product
On a Source	0.10	x	
		x	
0 to 1/4 mile	0.025	x	
		x	
		x	
1/4 to 1/2 mile	0.0054	x	
		x	
		x	
1/2 to 1 mile	0.0016	x	
		x	
		x	
1 to 2 miles	0.0005	x	
		x	
		x	
2 to 3 miles	0.00023	x	
		x	
		x	
3 to 4 miles	0.00014	x	
		x	
		x	
> 4 miles	0	x	
		Total Environments Score =	

SI TABLE 22 (From HRS TABLE 6-17): VALUES FOR POTENTIAL CONTAMINATION AIR TARGET POPULATIONS

Distance from Site	Pop.	Nearest Individual (choose highest)	Number of People within the Distance Category												Pop. Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,000 to 3,000,000	
On a source	★5 workers	20	(4)	17	53	164	522	1,633	5,214	16,325	52,137	163,246	521,360	1,632,455	4
0 to $\frac{1}{4}$ mile	0★★	*	1	4	13	41	131	408	1,304	4,081	13,034	40,812	130,340	408,114	0★★
$>\frac{1}{4}$ to $\frac{1}{2}$ mile	28	2	0.2	(0.9)	3	9	28	88	282	882	2,815	8,815	28,153	88,153	0.9
$>\frac{1}{2}$ to 1 mile	2773	1	0.06	0.3	0.9	3	8	(26)	83	261	834	2,612	8,342	26,119	26
> 1 to 2 miles	14,381	0	0.02	0.09	0.3	0.8	3	8	27	(83)	266	833	2,659	8,326	83
> 2 to 3 miles	12,772	0	0.009	0.04	0.1	0.4	1	4	12	(38)	120	375	1,199	3,755	38
>3 to 4 miles	33,910	0	0.005	0.02	0.07	0.2	0.7	2	7	28	(73)	229	730	2,285	73
	Nearest Individual =													Sum =	224.9 (225)

÷10 → 23

References GEMS ; SI Report

* Score = 20 if the Nearest Individual is within $\frac{1}{8}$ mile of a source; score = 7 if the Nearest Individual is between $\frac{1}{8}$ and $\frac{1}{4}$ mile of a source.

★★ – Population values obtained from GEMs database for 0- to 4-mile distance interval. The landfill is located in a highly industrialized area. The GEMs values reflect the lack of residential population in the 0- to 1/4-mile radius (SI Report; topo).

★ The # of workers at the facility was not provided in available file material (SI. Report).

Five workers w. assumed to be on the source for a "worst-case" scenario

AIR PATHWAY (concluded)

WASTE CHARACTERISTICS

9. If any Actual Contamination Targets exist for the air pathway, assign the calculated hazardous waste quantity score or a score of 100, whichever is greater; if there are no Actual Contamination Targets for the air pathway, assign the calculated HWQ score for sources available to air migration.	10
10. Assign the highest air toxicity/mobility value from SI Table 21. 3 or	2
11. Multiply the air pathway toxicity/mobility and hazardous waste quantity scores. Assign the Waste Characteristics score from the table below:	WC = 2

Product	WC Score
0	0
>0 to <10	1
10 to <100	2
100 to <1,000	3
1,000 to < 10,000	6
10,000 to <1E + 05	10
1E + 05 to <1E + 06	18
1E + 06 to <1E + 07	32
1E + 07 to <1E + 08	56
1E + 08 or greater	100

AIR PATHWAY SCORE: $\frac{LR}{\frac{LE \times T \times WC}{82,500}}$ = 0.52 (maximum of 100)

$$\frac{500 \times 43 \times 2}{82,500} = 0.52$$

SITE SCORE CALCULATION	S	S^2
GROUND WATER PATHWAY SCORE (S_{GW})	57.82	3343.15
SURFACE WATER PATHWAY SCORE (S_{SW}) 0.22	0.00	0.00
SOIL EXPOSURE (S_S)	0.6	0.36
AIR PATHWAY SCORE (S_A)	0.52	0.27
SITE SCORE $\sqrt{\frac{S_{GW}^2+S_{SW}^2+S_S^2+S_A^2}{4}}$ =		28.91 ✓

COMMENTS

Reference No. 1

U.S. EPA REGION IV

SDMS

Unscannable Material Target Sheet

DocID: 1073023 Site ID: GAD980559215

Site Name: Union Camp Corp

Nature of Material:

Map:	☒	Computer Disks:	☐
Photos:	☐	CD-ROM:	☐
Blueprints:	☐	Oversized Report:	☐
Slides:	☐	Log Book:	☐

Other (describe): Aerial Photo Map

Amount of material: _____

* Please contact the appropriate Records Center to view the material *

Reference No. 2

SCREENING SITE INVESTIGATION REPORT

UNION CAMP CORPORATION
SAVANNAH, GEORGIA
GAD980559215

Randy E. Dominy
Environmental Specialist
Georgia Environmental Protection Division
October 1988

Reviewed By: Marlin R. Gottschalk Date: December 30, 1988

TABLE OF CONTENTS

UNION CAMP CORPORATION

SCREENING SITE INVESTIGATION REPORT

EXECUTIVE SUMMARY

A landfill owned and operated on-site by the Union Camp Corporation from 1936 to 1962 is located at Allen Boulevard next to the SEPCO Substation in Savannah, Chatham County, Georgia. Coordinates are latitude 32° 04' 36.0" N and longitude 081° 07' 30.0" W.

Although the waste types and amounts received by the landfill are unrecorded, it is thought they consisted of non-hazardous wastes from the wood products facility such as wood chips, grit, sand, ashes, etc. The landfill is now overgrown with grass and vegetation.

The study area lies in the Coastal Plain Physiographic Province of Georgia and is underlain by sedimentary rocks of the Pamlico Shoreline Complex. Dominant soils in the area are loamy sands that are nearly level.

A large groundwater target population exists within the study area because of the presence of one Garden City municipal well and eight municipal wells serving the City of Savannah located within four miles of the site. The Garden City well alone serves 6895 customers; Savannah city wells serve an estimated 141,634. Twenty-nine private wells within four miles yield 148 additional targets.

Since Union Camp operated this landfill for twenty-six years with few records about waste types and quantities, an investigation into potential soil and/or water contamination from possibly hazardous substances leaching from buried materials is necessary.

Laboratory analyses confirmed that heavy metal contamination is present around the landfill. Of primary concern is the high levels of barium, chromium, nickel, and lead detected in on-site groundwater. Since groundwater is used extensively by area residents, it is important to identify the source of these contaminants. Therefore, the Georgia Environmental Protection Division recommends this site for a Listing Site Investigation.

1.0 INTRODUCTION

Union Camp Corporation operates a multi-faceted manufacturing facility in Savannah, with most of the non-hazardous waste products produced in its Paper and Board Division. These wastes, consisting of wood chips, grit, sand, and ashes, allegedly comprised the bulk of the wastes placed in an on-site landfill from 1936 to 1962. However, few records exist indicating exact waste types and amounts. The landfill is above land surface, approximately sixty feet high and approximately four acres in size. At present, the landfill is completely overgrown by grass, shrubs, and trees (Ref. 1, 2).

2.0 SITE CHARACTERIZATION

The on-site landfill at Union Camp Corporation operated from 1936 to 1962. Waste handling permits were not required since the landfill was operated before solid waste management regulations were enacted. No remedial or regulatory action concerning this landfill is documented. Union Camp Corporation currently holds an NPDES Permit (#025-0192-07), and a surface water withdrawal permit (#015-0009) (Ref. 1, 2).

Union Camp Corporation operated the on-site landfill from 1936 to 1962. Records indicating waste types and amounts are non-existent, but is is thought that the majority of wastes consisted of wood chips, grit, sand, ashes, etc. produced in the paper and board division. A site sketch showing, the former landfill site in relation to the existing Union Camp facility is attached (Ref. 1, 2; Appendix A - Attachment 1).

The landfill site is above land surface, sixty feet high, occupying approximately four acres. At present, the site is completely overgrown with vegetation. The Union Camp Corporation property is fenced and guarded, thereby limiting access to the site.

Union Camp Corporation is located in the Greater Savannah Metropolitan Area, a very densely populated urban landscape. The four-mile radius encompasses parts of Savannah, Garden City, and Port Wentworth, with estimated populations of 141,634, 6895, and 3947, respectively. Populations within the 1-, 2-, and 3-mile radii total 1000, 3800, and 5000, respectively. A number of schools, kindergartens, and day-care centers are located within two miles of the site. The nearest residence is located 0.7 miles to the west.

Agricultural land use within the area is non-existent (Ref. 3, Appendix A - Attachment 2).

The Savannah River Wildlife Refuge is adjacent to the Union Camp Corporation property, separated only by the Savannah River. This area represents a sensitive environment, for it serves as a habitat for several endangered species (Ref. 4, Appendix A - Attachment 2).

Annual precipitation in the area is 49 inches, with mean annual lake evaporation of 44 inches. Therefore, average annual net precipitation is 5 inches. The 1-year 24-hour rainfall for the area measures 3.7 inches (Ref. 5, 6).

Percolation and/or runoff drains from the aboveground landfill onto surrounding terrain. However, the general flatness of the area minimizes any further off-site drainage. Any off-site drainage would tend to flow eastward and northeastward towards the Savannah River. No known water intakes for drinking or irrigation exist on the Savannah River downstream from the site to the Atlantic Ocean. The Savannah River is actively used for fishing, recreation, and commercial navigation. No data to indicate surface water contamination exists (Ref. 2, Appendix A - Attachment 2).

Groundwater in the area is supplied by the Upper Floridan Aquifer. Permeable limestone provides a major water source for deep wells, whereas layers of sand, gravel, and clay between the surface and permeable limestone provide water for shallow wells. Well depths in the area are variable, ranging from 120 feet to over 1000 feet (Ref. 7).

Area groundwater serves as the exclusive source of drinking water, with nine municipal wells and 29 private wells within the study area serving over 150,000 residents. Groundwater is also heavily used by local industry, with Union Camp having five production wells on-site. The nearest private well is located 1.6 miles southwest of the site. Only a limited number of private wells exist within the study area, with 0, 1, 16, and 29 present within the 1-, 2-, 3-, and 4-mile radii, respectively, serving 110 potential targets. Garden City has a city well located 1.2 miles to the west, serving 6895 residents, while the city of Savannah has 1, 2, 6, and 7 municipal wells within the 1-, 2-, 3-, 4-mile radii, respectively. These wells are commingled within the system and serve 141,634 customers (Ref. 2, 3; Appendix A - Attachment 2).

3.0 Target Analysis

A large number of potential targets exist in the study area because of heavy groundwater use (Table 1). One Garden City well and six City of Savannah wells located within 3 miles of Union Camp serve 148,529 potential targets. Another 61 people utilize 16 private wells within 3 miles of the site. No known surface water intakes for drinking water occur along the Savannah River, nor has any air release been documented. Since the area is not accessible to the public, nearby residents should not come into direct contact with any potentially hazardous wastes (Ref. 2).

TABLE 1

Target Summary

Exposure Pathway	Target Population	Total Affected
Groundwater	16 private wells serving 61, 1 Garden City Well serving 6895 6 Savannah City wells serving 141,634	148,590
Surface water	No known intakes	0
Air	None - not scored	0
Direct Contact	None - fenced facility	0

4.0 FIELD INVESTIGATION

On August 26, 1988, GA-EPD collected six environmental samples to determine if area soil and water was contaminated. An on-site groundwater sample was collected on the northwest side of the landfill at a depth of 4.0 feet, to determine if sub-surface drainage had provided a pathway for migration of wastes off-site. A private well, owned by Stanley Barras at (b) (6) (b) (6) and located 2.4 miles northwest of the site on US Highway 17, served as a source for a background groundwater sample. Depth of the well is unknown.

A surface water sample was collected from an unlined drainage ditch located on the northwest side of the landfill. (Ref. 8; Appendix A - Attachment 1, 2)

Two soil borings were collected at a depth of 6 to 8 inches on the northwest side of the landfill and composited. A background soil sample was collected in a wooded area 2.4 miles northwest of the site at a depth of 6 to 8 inches.

For waste characterization, a sample was collected from the top of the landfill.

All samples were split with Union Camp Corporation personnel, labeled, and placed on ice for transport to the GA-EPD laboratory for analyses. Sampling and subsequent analyses were conducted in accordance with procedures set forth in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste."

TABLE 2

Summary of Analytical Results

Parameter	On-site Waste	On-site Soil	Background Soil	On-site Surface Water	On-site Groundwater	Background Groundwater
	----------mg/kg----------			----------ug/l----------		
Barium	100	48	13	78	3100	110
Chromium	7.1	35	6.4	25	1700	<10
Nickel	7.8	9.8	3.2	<20	240	<20
Lead	<3	32	4.4	<25	1100	<25

Results from EPD's laboratory indicate elevated levels of heavy metals, particularly in on-site groundwater collected at the Union Camp facility (Table 2; Appendix C). The levels of barium, chromium, nickel, and lead in on-site groundwater were 28, 170, 12, and 44 times above background levels. Barium, chromium, and lead concentrations exceeded the maximum contaminant levels for safe drinking water, as specified under Georgia regulations (Ref. 9).

Levels of barium, chromium, nickel, and lead in on-site soil were higher than background by factors of 4, 6, 3, and 7, respectively. A waste sample collected from the top of the landfill possessed high levels of barium (100 mg/kg). This may have contributed to the elevated barium level (78 ug/l) noted in the surface water sample collected adjacent to the landfill.

5.0 SUMMARY

Elevated levels of heavy metals were detected at the landfill operated by Union Camp from 1936 to 1962. Increased levels of barium, chromium, nickel, and lead were present in on-site groundwater. Analyses of a waste sample from the top of the landfill indicated high levels of barium. Although elevated levels of heavy metals were detected in on-site soil, levels did not exceed seven times background.

Because of the high levels of barium, chromium, nickel, and lead present in on-site groundwater, further detailed investigation is necessary. A thorough sampling of the landfill, utilizing drill rigs for core samplings, might indicate whether the landfill holds the heavy metals which are present in the groundwater. More detailed studies of area groundwater, utilizing monitoring wells, could better identify the extent of heavy metal contamination. This is particularly important since approximately 150,000 persons utilize area groundwater for drinking. Therefore, the Georgia Environmental Protection Division recommends the Union Camp Landfill for a Listing Site Investigation.

REFERENCES

1. Ussery, J. 1982. Identification and Preliminary Assessment - Union Camp Corporation. Georgia Department of Natural Resources, Environmental Protection Division.

2. Dominy, R.E. 1988. Trip Report - Site Inspection of Union Camp Corporation, 7/11/88. Georgia Department of Natural Resources, Environmental Protection Division.

3. Association of County Commissioners of Georgia. 1987. Georgia County Government Yearbook. Atlanta, Georgia.

4. United States Department of Interior. 1985. Endangered and Threatened Species of the Southeastern United States. Fish and Wildlife Service, Atlanta, GA. Ref No. 19.

5. Wilkes, R.L., J.H. Johnson, H.T. Stoner, and D.D. Bacon. 1974. Soil Survey of Bryan and Chatham Counties, Georgia. USDA-SCS.

6. U.S. EPA. 1984. Uncontrolled Hazardous Waste Ranking System, A User's Manual (HW-10).

7. Clarke, J.S., S.A. Longworth, C.N. Joiner, M.F. Peck, K.W. McFadden, and B.J. Milby. 1987. Groundwater Data for Georgia, 1986. Georgia Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey.

8. Dominy, R.E. 1988. Trip Report - Sampling of Union Camp, 8/26/88. Georgia Department of Natural Resources, Environmental Protection Division.

9. Georgia Department of Natural Resources. Rules for Safe Drinking Water, Chapter 391-3-5 of Rules of Georgia Department of Natural Resources, Environmental Protection Division, August 4, 1983 (Revised).

References

Ref 1, pg 1 of 11

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

SITE NUMBER (To be assigned by EPA)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for [illegible] inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as results of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II *(Preliminary Assessment)*. File this form in the Regional Hazardous Waste Log File and submit a copy to: [illegible] Environmental Protection Task Force *(EN-335)*; 401 M St., S.W., Washington, DC 20460.

GAD980559215 CHATHAM
UNION CAMP CORP
ALLEN BLVD NEXT TO SEPCO SUBST
SAVANNAH GA 31401
MATTHEWS, CHRIS, DIV TECH 912/236-5771

I. IDENTIFICATION

B. STREET *(or other identifier)*

D. STATE | E. ZIP CODE | F. COUNTY NAME

G. TELEPHONE NUMBER

H. TYPE OF OWNERSHIP
☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE ☐ N

"103-C [illegible]TIFICATION" DATE: 810606
JIM SETZER
PHONE: 4[illegible]4-656-2633

J. DATE IDENTIFIED *(mo., day, & yr.)*

K. TELEPHONE NUMBER

II. PRELIMINARY ASSESSMENT *(complete this section last)*

A. APPARENT SERIOUSNESS OF PROBLEM
☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION
☐ 1. NO ACTION NEEDED *(no hazard)*
☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 4. SITE INSPECTION NEEDED [illegible] priority)

C. PREPARER INFORMATION
1. NAME | 2. TELEPHONE NUMBER | 3. DATE *(mo., day, & yr.)*

III. SITE INFORMATION

A. SITE STATUS
☐ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if intermittently.)*
☐ 2. INACTIVE *(Those sites which no longer receive wastes.)*
☐ 3. OTHER (specify) *(Those sites that include [illegible] like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)*

B. IS GENERATOR ON SITE?
☐ 1. NO ☐ 2. YES *(specify general SIC four-digit SIC Code)*

C. AREA OF SITE *(in acres)*

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES
1. LATITUDE (deg.-min.-sec.) | 2. [illegible] (deg.-min.-sec.)

E. ARE THERE BUILDINGS ON THE SITE?
☐ 1. NO ☐ 2. YES *(specify)*

T2070-2 (10-79)

CONTINUE ON REVERSE

CERCLA

LAND PROTECTION BRANCH
HAZARDOUS WASTE ANALYSIS REQUEST

DATE: 8-26-88 PROJECT: Union Camp COLLECTOR: Randy Dominy

NO. SAMPLES: 6 LOG NOS. 3075-3078-3089 LIQUID 3 SOLID — SOIL 2

CAUSTIC ____ ACID ____ SOLVENT ____ UNKNOWN ____ SLUDGE 1

INFORMATION FOUND: A closed on-site landfill operated from 1936-62 and is thought to have received wastes associated with paper and paperboard manufacture.

RECEIVED

OCT 26 1988

HAZARDOUS WASTE NOS. ____

HAZARDOUS HANDLING: ____

WORK PRIORITY (CRITICAL NEED) ____

2, App A C

METALS — INVESTIGATION PROGRAM

	TOT	DIS		
METALS (DW NO Hg)	☑	☐	100X ☐	30X ☐
METALS (DW WITH Hg)	☐	☐		

	TOT	DIS		TOT	DIS				
NICKEL	☑	☐	CADMIUM	☐	☐	EP NICKEL	☐	EP CADMIUM	☐
ARSENIC	☐	☐	LEAD	☐	☐	EP ARSENIC	☐	EP LEAD	☐
CHROMIUM	☐	☐	MERCURY	☐	☐	EP CHROMIUM	☐	EP MERCURY	☐
CHROM-HEX	☐	☐	SELENIUM	☐	☐	EP CHROM-HEX	☐	EP SELENIUM	☐
____	☐	☐	____	☐	☐	____	☐	____	☐

SPECIFIC ANALYSES

pH	☐	SULFIDE	☐	% SOLIDS	☐	____	☐
FLASH PT	☐	SP.COND.	☐	TOT. PHENOLS	☐	____	☐
CYANIDE TOT.	☐	TOC	☐	CHLORIDE	☐	____	☐
CYANIDE AM.	☐	TOH	☐	FLUORIDE	☐	____	☐

ORGANIC ANALYSES

PESTICIDE SCREEN (EC)	☐	GC-MS ACID EXTRACTABLES	☐
PCB	☐	GC-MS BASE/NEUTRALS	☐
VOLATILE ORGANICS (VOA)	☑		

SPECIFIC ORGANICS: ____

APPROVED: Marlin R. Gottschalk AUTHORIZED: Randolph H. Williams

LABORATORY REPORT

SAMPLE DATE: 8/25/88 PROJECT: Union Camp COLLECTOR: Randy Dominy

	HW LOG NO.	3075	3076	3077	3078
DATE REC'D	26-Aug-1988 LABEL	W-1 waste sample - top of landfill	S-1 composite soil - from base of landfill	SW-1 surface water from ditch at base of landfill	GW-1 groundwater from hand augered hole @ 4ft.
TIME REC'D	10:36 am				
REC'D BY:	M Brassington				
DEL BY:	E. Topp				
	J Harold Langford LABORATORY MANAGER				
DATE:	10-27-88				
PARAMETERS	LAB NO.	HW 3075	3076	3077	3078
Total:					
Ag		<5 mg/kg	<5 mg/kg	<30 ug/L	<30 ug/L
As		<5 "	<5 "	<50 "	<50 "
Ba		100 "	48 "	78 "	3,100 "
Cd		<1 "	<1 "	<10 "	<10 "
Cr		7.1 "	35 "	25 "	1,700 "
Ni		7.8 "	9.8 "	<20 "	240 "
Pb		<3 "	32 "	<25 "	1,100 "
Se		<10 "	<10 "	<100 "	<100 "
Volatile Organics		<See Attached Sheets →			

REMARKS:

LABORATORY REPORT

SAMPLE DATE: 8/25/88 PROJECT: Union Camp COLLECTOR: Randy Deming

	HW LOG NO.	3079	3080			
DATE REC'D	26-Aug-1988 LABEL	BS background soil - taken from Roadside Park	BGW background groundwater - taken from domestic well			
TIME REC'D	10:36					
REC'D BY:	M. Basnajan					
DEL BY:	E. Topp					
	J. Harold Langford LABORATORY MANAGER					
DATE:	10-25-88					

PARAMETERS	LAB NO.	3079	3080
Total:			
Ag		<5 mg/kg	<30 ug/L
As		<5 "	<50 "
Ba		13 "	110 "
Cd		<1 "	<10 "
Cr		6.4 "	<10 "
Ni		3.2 "	<20 "
Pb		4.4 "	<25 "
Se		<10 "	<100 "
Volatile Organics		See Attached Sheets	

REMARKS:

DATE: 9-20-84

PROJECT: Union Camp

SOURCE: Background Groundwater

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
PURGEABLE ORGANIC ANALYSIS-WATER
DATA REPORTING SHEET

SAMPLE REC'D (date & time):
SAMPLE START (date & time):
SAMPLE STOP (date & time):

SAMPLE TYPE: Water
SAMPLE NO.: HW 3080

CHEMIST: MB COMPLETE: dm

Compound	Storet#		Units	Compound	Storet#		Units
Methylene Chloride	34423	<5	µg/l	Acetone		<10	µg/l
Trichlorofluoromethane	34488	<1	µg/l	Methyl Ethyl Ketone		<10	µg/l
1,1-Dichloroethylene	34501		µg/l	Carbon Disulfide		<1	µg/l
1,1-Dichloroethane	34496		µg/l	Isopropyl Acetate			µg/l
1,2-Trans-Dichloro-ethylene	34546		µg/l	2-Hexanone			
				Methyl Isobutyl Ketone			µg/l
Chloroform	32106		µg/l	Styrene			µg/l
1,2-Dichloroethane	32103		µg/l	O-Xylene			µg/l
1,1,1-Trichloroethane	34506		µg/l	P-Xylene			µg/l
Carbon Tetrachloride	32102		µg/l	M-Xylene			µg/l
Dichlorobromomethane	32101		µg/l	Ethyl Acetate			µg/l
1,2-Dichloropropane	34541		µg/l	n-Propyl Acetate			µg/l
Trans-1,3-Dichloro-propene	34699		µg/l	Butyl Acetate			µg/l
				Acrolein	34210	<50	µg/l
Trichloroethylene	39180		µg/l	Acrylonitrile	34215	<50	µg/l
Benzene	34030		µg/l	Chloromethane	34418	<10	µg/l
Chlorodibromomethane	34306		µg/l	Bromomethane	34413		µg/l
1,1,2-Trichloroethane	34511		µg/l	Vinyl Chloride	39175		µg/l
Cis-1,3-Dichloropropene	34704		µg/l	Chloroethane	34311		µg/l
2-Chloroethyl Vinyl Ether	34576						µg/l
							µg/l
Bromoform	32104		µg/l				µg/l
1,1,2,2-Tetrachloro-ethane	34516		µg/l				µg/l
							µg/l
Tetrachloroethylene	34475		µg/l				µg/l
Toluene	34010		µg/l				µg/l
Chlorobenzene	34301		µg/l				µg/l
Ethylbenzene	34371		µg/l				µg/l

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

M - NOT ANALYZED

No other purgeable organic compound detected with an estimated minimum detection limit of _____

DATE: 9-20-88
PROJECT: Union Camp
SOURCE: Background Soil

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
PURGEABLE ORGANIC ANALYSIS-SEDIMENT
DATA REPORTING SHEET

SAMPLE TYPE: Soil
SAMPLE NO.: HW 3079

SAMPLE REC'D (date & time):
SAMPLE START (date & time):
SAMPLE STOP (date & time):
CHEMIST: MA COMPLETED: DH

Compound	Storet#		Units
Methylene Chloride	34426	< 5	µg/Kg
Trichlorofluoromethane	34491	< 1	µg/Kg
1,1-Dichloroethylene	34504		µg/Kg
1,1-Dichloroethane	34499		µg/Kg
1,2-Trans-Dichloroethylene	34549		µg/Kg
Chloroform	34318		µg/Kg
1,2-Dichloroethane	34534		µg/Kg
1,1,1-Trichloroethane	34509		µg/Kg
Carbon Tetrachloride	34299		µg/Kg
Dichlorobromomethane	34330		µg/Kg
1,2-Dichloropropane	34544		µg/Kg
Trans-1,3-Dichloropropene	34697		µg/Kg
Trichloroethylene	34487		µg/Kg
Benzene	34237		µg/Kg
Chlorodibromomethane	34309		µg/Kg
1,1,2-Trichloroethane	34514		µg/Kg
Cis-1,3-Dichloropropene	34702		µg/Kg
2-Chloroethyl Vinyl Ether	34579		µg/Kg
Bromoform	34290		µg/Kg
1,1,2,2-Tetrachloroethane	44519		µg/Kg
Tetrachloroethylene	34478		µg/Kg
Toluene	34483		µg/Kg
Chlorobenzene	34304		µg/Kg
Ethylbenzene	34374		µg/Kg

Compound	Storet#		Units
Acetone		< 10	µg/Kg
Methy Ehtyl Ketone		< 10	µg/Kg
Carbon Disulfide		< 1	µg/Kg
Isopropyl Acetate			µg/Kg
2-Hexanone			µg/Kg
Methyl Isobutyl Ketone			µg/Kg
Styrene			µg/Kg
O-Xylene			µg/Kg
P-Xylene			µg/Kg
M-Xylene			µg/Kg
Ethyl Acetate			µg/Kg
N-Propyl Acetate			µg/Kg
Butyl Acetate			µg/Kg
Acrolein	34213	< 50	µg/Kg
Acrylonitrile	34218	< 50	µg/Kg
Chloromethane	34421	< 10	µg/Kg
Bromomethane	34416		µg/Kg
Vinyl Chloride	34495		µg/Kg
Chloroethane	34314		µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

No other purgeable organic compound detected with an estimated minimum detection limit of _____.

M - NOT ANALYZED

DATE: 9-20-88 GEORGIA ENVIRONMENTAL PROTECTION DIVISION SAMPLE REC'D (date & time): _____
PROJECT: Union Camp PURGEABLE ORGANIC ANALYSIS-WATER SAMPLE START (date & time): _____
SOURCE: GW-1 Groundwater DATA REPORTING SHEET SAMPLE STOP (date & time): _____
from augered hole @ 4'
SAMPLE TYPE: Water CHEMIST: MB COMPLETE: DR
SAMPLE NO.: HW3028

Compound	Storet#	Units	Compound	Storet#	Units
Methylene Chloride	34423 <5	µg/l	Acetone	<10	µg/l
Trichlorofluoromethane	34488 <1	µg/l	Methyl Ethyl Ketone	<10	µg/l
1,1-Dichloroethylene	34501	µg/l	Carbon Disulfide	<1	µg/l
1,1-Dichloroethane	34496	µg/l	Isopropyl Acetate		µg/l
1,2-Trans-Dichloro-ethylene	34546	µg/l	2-Hexanone		µg/l
			Methyl Isobutyl Ketone		µg/l
Chloroform	32106	µg/l	Styrene		µg/l
1,2-Dichloroethane	32103	µg/l	O-Xylene		µg/l
1,1,1-Trichloroethane	34506	µg/l	P-Xylene		µg/l
Carbon Tetrachloride	32102	µg/l	M-Xylene		µg/l
Dichlorobromomethane	32101	µg/l	Ethyl Acetate		µg/l
1,2-Dichloropropane	34541	µg/l	n-Propyl Acetate		µg/l
Trans-1,3-Dichloro-propene	34699	µg/l	Butyl Acetate		µg/l
			Acrolein	34210 <50	µg/l
Trichloroethylene	39180	µg/l	Acrylonitrile	34215 <10	µg/l
Benzene	34030	µg/l	Chloromethane	34418 <10	µg/l
Chlorodibromomethane	34306	µg/l	Bromomethane	34413	µg/l
1,1,2-Trichloroethane	34511	µg/l	Vinyl Chloride	39175	µg/l
Cis-1,3-Dichloropropene	34704	µg/l	Chloroethane	34311	µg/l
2-Chloroethyl Vinyl Ether	34576				µg/l
					µg/l
Bromoform	32104	µg/l			µg/l
1,1,2,2-Tetrachloro-ethane	34516	µg/l			µg/l
					µg/l
Tetrachloroethylene	34475	µg/l			µg/l
Toluene	34010	µg/l			µg/l
Chlorobenzene	34301	µg/l			µg/l
Ethylbenzene	34371	µg/l			µg/l

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

M - NOT ANALYZED

No other purgeable organic compound detected with an estimated minimum detection limit of _____

DATE: 9/20/85 GEORGIA ENVIRONMENTAL PROTECTION DIVISION SAMPLE REC'D (date & time):
PROJECT: Union Camp PURGEABLE ORGANIC ANALYSIS-WATER SAMPLE START (date & time):
SOURCE: Surface water from DATA REPORTING SHEET SAMPLE STOP (date & time):
Ditch at base of Landfill
SAMPLE TYPE: ~~Water~~ Soil CHEMIST: MB COMPLETE: DR
SAMPLE NO.: HW 3077

Compound	Storet#		Units	Compound	Storet#		Units
Methylene Chloride	34423	<5	µg/l	Acetone		<10	µg/l
Trichlorofluoromethane	34488	<1	µg/l	Methyl Ethyl Ketone		<10	µg/l
1,1-Dichloroethylene	34501		µg/l	Carbon Disulfide		<1	µg/l
1,1-Dichloroethane	34496		µg/l	Isopropyl Acetate			µg/l
1,2-Trans-Dichloro-ethylene	34546		µg/l	2-Hexanone			µg/l
				Methyl Isobutyl Ketone			µg/l
Chloroform	32106		µg/l	Styrene			µg/l
1,2-Dichloroethane	32103		µg/l	O-Xylene			µg/l
1,1,1-Trichloroethane	34506		µg/l	P-Xylene			µg/l
Carbon Tetrachloride	32102		µg/l	M-Xylene			µg/l
Dichlorobromomethane	32101		µg/l	Ethyl Acetate			µg/l
1,2-Dichloropropane	34541		µg/l	n-Propyl Acetate			µg/l
Trans-1,3-Dichloro-propene	34699		µg/l	Butyl Acetate			µg/l
				Acrolein	34210	<50	µg/l
Trichloroethylene	39180		µg/l	Acrylonitrile	34215	<50	µg/l
Benzene	34030		µg/l	Chloromethane	34418	<10	µg/l
Chlorodibromomethane	34306		µg/l	Bromomethane	34413		µg/l
1,1,2-Trichloroethane	34511		µg/l	Vinyl Chloride	39175		µg/l
Cis-1,3-Dichloropropene	34704		µg/l	Chloroethane	34311		µg/l
2-Chloroethyl Vinyl Ether	34576						µg/l
							µg/l
Bromoform	32104		µg/l				µg/l
1,1,2,2-Tetrachloro-ethane	34516		µg/l				µg/l
							µg/l
Tetrachloroethylene	34475		µg/l				µg/l
Toluene	34010		µg/l				µg/l
Chlorobenzene	34301		µg/l				µg/l
Ethylbenzene	34371		µg/l				µg/l

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

M - NOT ANALYZED

No other purgeable organic compound detected with an estimated minimum detection limit of _____

DATE: 9-20-88
PROJECT: Union Camp
SOURCE: S-1 Composite soil - Saw 4 Landfill

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
PURGEABLE ORGANIC ANALYSIS-SEDIMENT
DATA REPORTING SHEET

SAMPLE REC'D (date & time):
SAMPLE START (date & time):
SAMPLE STOP (date & time):

SAMPLE TYPE: Soil
SAMPLE NO.: HW 3076

CHEMIST: MB COMPLETED: dk

Compound	Storet#		Units
Methylene Chloride	34426	<5	µg/Kg
Trichlorofluoromethane	34491	<1	µg/Kg
1,1-Dichloroethylene	34504		µg/Kg
1,1-Dichloroethane	34499		µg/Kg
1,2-Trans-Dichloroethylene	34549		µg/Kg
Chloroform	34318		µg/Kg
1,2-Dichloroethane	34534		µg/Kg
1,1,1-Trichloroethane	34509		µg/Kg
Carbon Tetrachloride	34299		µg/Kg
Dichlorobromomethane	34330		µg/Kg
1,2-Dichloropropane	34544		µg/Kg
Trans-1,3-Dichloropropene	34697		µg/Kg
Trichloroethylene	34487		µg/Kg
Benzene	34237		µg/Kg
Chlorodibromomethane	34309		µg/Kg
1,1,2-Trichloroethane	34514		µg/Kg
Cis-1,3-Dichloropropene	34702		µg/Kg
2-Chloroethyl Vinyl Ether	34579		µg/Kg
Bromoform	34290		µg/Kg
1,1,2,2-Tetrachloroethane	44519		µg/Kg
Tetrachloroethylene	34478		µg/Kg
Toluene	34483		µg/Kg
Chlorobenzene	34304		µg/Kg
Ethylbenzene	34374		µg/Kg

Compound	Storet#		Units
Acetone		<10	µg/Kg
Methy Ehtyl Ketone		<10	µg/Kg
Carbon Disulfide		<1	µg/Kg
Isopropyl Acetate			µg/Kg
2-Hexanone			µg/Kg
Methyl Isobutyl Ketone			µg/Kg
Styrene			µg/Kg
O-Xylene			µg/Kg
P-Xylene			µg/Kg
M-Xylene			µg/Kg
Ethyl Acetate			µg/Kg
N-Propyl Acetate			µg/Kg
Butyl Acetate			µg/Kg
Acrolein	34213	<50	µg/Kg
Acrylonitrile	34218	<50	µg/Kg
Chloromethane	34421	<10	µg/Kg
Bromomethane	34416		µg/Kg
Vinyl Chloride	34495		µg/Kg
Chloroethane	34314		µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

No other purgeable organic compound detected with an estimated minimum detection limit of _____

M - NOT ANALYZED

DATE: 9-20-84
PROJECT: Union Camp
SOURCE: W-1 Soil+Waste Top of Landfill

GEORGIA ENVIRONMENTAL PROTECTION DIVISION
PURGEABLE ORGANIC ANALYSIS-SEDIMENT
DATA REPORTING SHEET

SAMPLE TYPE: Soil + Waste
SAMPLE NO.: HW 3075

SAMPLE REC'D (date & time):
SAMPLE START (date & time):
SAMPLE STOP (date & time):
CHEMIST: MB COMPLETED: DR

Compound	Storet#		Units
Methylene Chloride	34426	< 5	µg/Kg
Trichlorofluoromethane	34491	< 1	µg/Kg
1,1-Dichloroethylene	34504		µg/Kg
1,1-Dichloroethane	34499		µg/Kg
1,2-Trans-Dichloro-ethylene	34549		µg/Kg
Chloroform	34318		µg/Kg
1,2-Dichloroethane	34534		µg/Kg
1,1,1-Trichloroethane	34509	5	µg/Kg
Carbon Tetrachloride	34299	< 1	µg/Kg
Dichlorobromomethane	34330		µg/Kg
1,2-Dichloropropane	34544		µg/Kg
Trans-1,3-Dichloro-propene	34697		µg/Kg
Trichloroethylene	34487		µg/Kg
Benzene	34237		µg/Kg
Chlorodibromomethane	34309		µg/Kg
1,1,2-Trichloroethane	34514		µg/Kg
Cis-1,3-Dichloropropene	34702		µg/Kg
2-Chloroethyl Vinyl Ether	34579		µg/Kg
Bromoform	34290		µg/Kg
1,1,2,2-Tetrachloro-ethane	44519		µg/Kg
Tetrachloroethylene	34478		µg/Kg
Toluene	34483		µg/Kg
Chlorobenzene	34304		µg/Kg
Ethylbenzene	34374		µg/Kg

Compound	Storet#		Units
Acetone		< 10	µg/Kg
Methy Ehtyl Ketone		< 10	µg/Kg
Carbon Disulfide		8	µg/Kg
Isopropyl Acetate		< 1	µg/Kg
2-Hexanone			µg/Kg
Methyl Isobutyl Ketone			µg/Kg
Styrene			µg/Kg
O-Xylene			µg/Kg
P-Xylene			µg/Kg
M-Xylene			µg/Kg
Ethyl Acetate			µg/Kg
N-Propyl Acetate			µg/Kg
Butyl Acetate			µg/Kg
Acrolein	34213	< 50	µg/Kg
Acrylonitrile	34218	< 50	µg/Kg
Chloromethane	34421	< 10	µg/Kg
Bromomethane	34416		µg/Kg
Vinyl Chloride	34495		µg/Kg
Chloroethane	34314		µg/Kg
Hexanal		320 *	µg/Kg
Heptanal		50 *	µg/Kg
Octanal		15 *	µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg
			µg/Kg

U - ANALYZED FOR BUT NOT DETECTED (value reported is detection limit - D.L.)

No other purgeable organic compound detected with an estimated minimum detection limit of _____

M - NOT ANALYZED

* Estimated Values and Tentative Identification

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PRO..TION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L A

PAGE: 26-8
RUN DATE: 85/07/16
RUN TIME: 20:39:49

M.2 - SITE MAINTENANCE FORM

	* ACTION: _ *
EPA ID: GAD980559215	
SITE NAME: UNION CAMP CORP SOURCE: N	* _____ _ *
STREET: ALLEN BLVD NEXT TO SEPCO SUBST CONG DIST: 01	* _____ __ *
CITY: SAVANNAH ZIP: 31401	* _____ ____-___ *
CNTY NAME: CHATHAM CNTY CODE: 051	* _____ ___ *
LATITUDE: 32/04/36.0 LONGITUDE: 081/07/30.0	* __/__/__._ ___/__/__._ *
SMSA: 7520 HYDRO UNIT: 03060109	* ___ _____ *
INVENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N	* _ _ _ _ *
NPL IND: N NPL LISTING DATE: NPL DELISTING DATE:	* _ __/__ __/__ *
APPROACH: SITE CLASS:	* ___ __ *
SITE/SPILL IDS:	* _ _ _ _ _ *
RPM NAME: RPM PHONE: - -	* _____ ___-___-____ *
DIOXIN TIER: REG FLD1: REG FLD2:	* ___ _____ _ *
RESP TERM: PENDING (X) NO FURTHER ACTION ( )	* PENDING (_) NO FURTHER ACTION (_) *
ENF DISP: NO VIABLE RESP PARTY ( ) VOLUNTARY RESPONSE ( )	* _ _ *
ENFORCED RESPONSE ( ) COST RECOVERY ( )	* _ _ *
SITE DESCRIPTION:	
	* _____ *
	* _____ *
	* _____ *
	* _____ *

Reference No. 3

M.2 - PROGRAM MAINTENANCE FORM

* ACTION: _ *

SITE: UNION CAMP CORP

EPA ID: GAD980559215 PROGRAM CODE: H01 PROGRAM TYPE: * _ *

PROGRAM QUALIFIER: ALIAS LINK : * __ _ *

PROGRAM NAME: SITE EVALUATION * _____ *

DESCRIPTION:

* __ _____ *

* _____ *

* _____ *

* _____ *

Ref. PD 9.4.11

REGION: 04
STATE : GA

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
C E R C L A

PAGE: 2630
RUN DATE: 85/07/16
RUN TIME: 20:39:49

M.2 - EVENT MAINTENANCE FOR::

* ACTION: _ *

SITE: UNION CAMP CORP
PROGRAM: SITE EVALUATION

EPA ID: GAD980559215 PROGRAM CODE: H01 EVENT TYPE: DS1

FMS CODE: EVENT QUALIFIER: EVENT LEAD: E

EVENT NAME: DISCOVERY STATUS:

DESCRIPTION:

ORIGINAL START:	CURRENT START:	ACTUAL START:
COMP :	COMP :	COMP : 81/06/01

HQ COMMENT:

RG COMMENT:

COOP AGR #	AMENDMENT #	STATUS	STATE %

M.2 - EVENT MAINTENANCE FORM

* ACTION: _ *

SITE: UNION CAMP CORP
PROGRAM: SITE EVALUATION

EPA ID: GAD980559215 PROGRAM CODE: H01 EVENT TYPE: PA1

FMS CODE: EVENT QUALIFIER: EVENT LEAD: S

EVENT NAME: PRELIMINARY ASSESSMENT STATUS:

DESCRIPTION:

ORIGINAL	CURRENT	ACTUAL
START:	START:	START: 82/09/01
COMP :	COMP :	COMP : 82/09/01

HQ COMMENT:

RG COMMENT:

COOP AGR #	AMENDMENT #	STATUS	STATE %

Ref 1, pg 2 of 11

Reference No. 4

EPA

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION	SITE NUMBER (to be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II *(Preliminary Assessment)*. File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency Task Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

GAD980559215 CHATHAM
UNION CAMP CORP
ALLEN BLVD NEXT TO SEPCO SUBST
SAVANNAH GA 31401
MATTHEWS, CHRIS, DIV TEC* 9122365771

I. IDENTIFICATION

B. STREET *(or other identifier)*

D. STATE	E. ZIP CODE	F. COUNTY NAME

2. TELEPHONE NUMBER

G. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4 MUNICIPAL ☐ 5 PRIVATE ☐ 6 UNKNOWN

"103-C NOTIFICATION" DATE: 810608
JIM SETZER
PHONE: 404-656-2833

J. DATE IDENTIFIED (mo., day, & yr.)

2. TELEPHONE NUMBER

II. PRELIMINARY ASSESSMENT *(complete this section last)*

A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3 LOW ☐ 4 NONE ☐ 5 UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED *(no hazard)*

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:

☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:

☐ 4. SITE INSPECTION NEEDED *(low priority)*

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)

III. SITE INFORMATION

A. SITE STATUS

☐ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)*

☐ 2. INACTIVE *(Those sites which no longer receive wastes.)*

☐ 3. OTHER *(specify)*: _____ *(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)*

B. IS GENERATOR ON SITE?

☐ 1. NO ☐ 2. YES *(specify generator's four-digit SIC Code)*: _____

C. AREA OF SITE *(in acres)*	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES	
	1. LATITUDE *(deg.-min.-sec.)*	2. LONGITUDE *(deg.-min.-sec.)*

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO ☐ 2. YES *(specify)*: _____

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

X	A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (specify):
					9. OTHER (specify):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1 UNKNOWN ☐ 2 LIQUID ☐ 3. SOLID ☐ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4 RADIOACTIVE ☐ 5 HIGHLY VOLATILE
☐ 6. TOXIC ☐ 7 REACTIVE ☐ 8 INERT ☐ 9 FLAMMABLE

☐ 10. OTHER (specify): _____

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
X (1) PAINT, PIGMENTS	X (1) OILY WASTES	X (1) HALOGENATED SOLVENTS	X (1) ACIDS	X (1) FLYASH	X (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify)	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify)		

EPA

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION	SITE NUMBER (to be assigned by Hq)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information omitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (*Preliminary Assessment*). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (*EN-335*); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET (or other identifier)		
UNION CAMP CORP.	ALLEN BLVD. NEXT TO SEPCO SUBST.		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
SAVANNAH	GA.	31401	CHATHAM

G. OWNER/OPERATOR (If known)

1. NAME: MATTHEWS, CHRISTOPHER DIV. TECH DIR.
2. TELEPHONE NUMBER: 912 236 5971

H. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION

1936-62 PILES, DRUMS BELOW GROUND.

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.)	K. DATE IDENTIFIED (mo., day, & yr.)
103 C NOTIFICATION	6-8-81

L. PRINCIPAL STATE CONTACT

1. NAME: MOSES N. McCALL III
2. TELEPHONE NUMBER: 404 656-2833

II. PRELIMINARY ASSESSMENT (complete this section last)

APPARENT SERIOUSNESS OF PROBLEM

☒ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED (*no hazard*)

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: _____
b. WILL BE PERFORMED BY: _____

☐ 4. SITE INSPECTION NEEDED (*low priority*)

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
JIM USSERY	404 656-2833	9-14-82

III. SITE INFORMATION

A. SITE STATUS

☐ 1. ACTIVE (*Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.*)

☒ 2. INACTIVE (*Those sites which no longer receive wastes.*)

☐ 3. OTHER (*specify*): _____ (*Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.*)

B. IS GENERATOR ON SITE?

☒ 1. NO ☐ 2. YES (*specify generator's four-digit SIC Code*): _____

C. AREA OF SITE (in acres)	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES	
	1. LATITUDE (deg.—min.—sec.)	2. LONGITUDE (deg.—min.—sec.)
180,000 FT²		

E. ARE THERE BUILDINGS ON THE SITE?

☒ 1. NO ☐ 2. YES (*specify*): _____

Continue On Reverse

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

X	A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY	X	8. OTHER (specify): PILES, DRUMS BELOW GROUND
					9. OTHER (specify):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

[X] 1. UNKNOWN [X] 2. LIQUID [X] 3. SOLID [X] 4. SLUDGE [ ] 5. GAS

B. WASTE CHARACTERISTICS

[X] 1. UNKNOWN [X] 2. CORROSIVE [ ] 3. IGNITABLE [ ] 4. RADIOACTIVE [ ] 5. HIGHLY VOLATILE
[X] 6. TOXIC [ ] 7. REACTIVE [ ] 8. INERT [X] 9. FLAMMABLE

[ ] 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

No

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT 3000	AMOUNT 3,000	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE FT3	UNIT OF MEASURE FT3	UNIT OF MEASURE	UNIT OF MEASURE
X (1) PAINT, PIGMENTS	X (1) OILY WASTES	X (1) HALOGENATED SOLVENTS	X (1) ACIDS	X (1) FLYASH	X (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			X (10) METALS		
			X (11) OTHER (specify) ORGANICS INORGANICS		

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

DDT, RADIOACTIVE WASTE

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

NONE

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER	X			
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL	X			
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continue On Reverse

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

☐ 1. NPDES PERMIT ☐ 2. SPCC PLAN ☐ 3. STATE PERMIT *(specify)*: _____

☐ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER

☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9 RCRA DISPOSER

☒ 10. OTHER *(specify)*: NONE

B. IN COMPLIANCE?

☐ 1. YES ☐ 2. NO ☒ 3. UNKNOWN

4. WITH RESPECT TO *(list regulation name & number)*: _____

VIII. PAST REGULATORY ACTIONS

☒ A. NONE ☐ B. YES *(summarize below)*

IX. INSPECTION ACTIVITY *(past or on-going)*

☒ A. NONE ☐ B. YES *(complete items 1,2,3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

X. REMEDIAL ACTIVITY *(past or on-going)*

☒ A. NONE ☐ B. YES *(complete items 1, 2, 3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment *(Section II)* information on the first page of this form.

Reference No. 5

Ref 8, pg 1 of 8

Department of Natural Resources
205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334
J. Leonard Ledbetter, Commissioner
Harold F. Reheis, Assistant Director
Environmental Protection Division

TRIP REPORT

November 29, 1988

SITE NAME AND LOCATION:	Union Camp Corporation Allen Boulevard Savannah, GA 31401
EPA ID NUMBER:	GAD980559215
COUNTY:	Chatham
TRIP BY:	Randy Dominy Environmental Specialist Site Assessment Unit
ACCOMPANIED BY:	Elizabeth Topp Environmental Specialist Site Assessment Unit
DATE AND TIME OF INVESTIGATION:	August 25, 1988 1:00 p.m. 90°F - sunny, hot
OFFICIALS CONTACTED:	Thomas J. Dillon Associate General Counsel and Assistant Secretary Union Camp Corporation P.O. Box 1391 Savannah, GA 31402 Alan R. Jones Division Technical Director Union Camp Corporation P.O. Box 570 Savannah, GA 31402 Charles Beacham Process Engineer Union Camp Corporation Savannah, GA 31402
REFERENCE:	Georgia - EPD State Files: Union Camp Corporation GAD980559215

Ref 8, pg 2 of 8

TRIP REPORT
Union Camp Corporation
Randy Dominy
November 29, 1988
Page Two

COMMENTS:

Elizabeth Topp and I met with Union Camp officials to discuss the sampling plan before proceeding to the landfill. Mr. Beacham accompanied us during all phases of the sampling, both on- and off-site, to obtain split samples.

Initially, a waste sample was collected from the top of the landfill for characterization and identification. The residue resembled wood pulp waste and possessed a "tar-like" consistency.

Three soil borings, 6 inches in depth, were collected to the northwest of the landfill and composited. This area was located beyond the drainage ditch and appeared to be the least disturbed.

A surface water sample was collected from the unlined drainage ditch located on the northwestern site of the landfill. This ditch is a potential recipient of waste via runoff and/or leaching from the landfill.

Groundwater was collected from a hand-augered 4-foot boring on the northwest side of the landfill.

Background samples of both soil and groundwater were collected approximately 2.4 miles northwest of the site adjacent to U.S. Highway 17. A private well, depth unknown, and owned by Mr. Stanley Barras at (b) (6) in (b) (6) , provided a groundwater sample. Background soil was collected from a wooded area at a depth of six inches.

All samples were collected and placed on ice from transport to the EPD laboratory for analyses.

CONCLUSIONS:
No conclusions can be made until laboratory analyses are completed.

RECOMMENDATIONS AND FOLLOW-UP REQUIRED:
-Send copy of laboratory results to Union Camp.

PHOTOGRAPHS: Five (5) Polaroids

NUMBER OF WASTE/ENVIRONMENTAL SAMPLES TAKEN: Six (6)

REVIEWED BY: Marlin R. Gottschalk DATE: December 22, 1988

Ref 8, pg 3 of 8

ATTACHMENTS: Site Location Map
Site Sketch
Photographs (5)

RED:tme/1/24

File - Union Camp Corporation (GAD980559215)

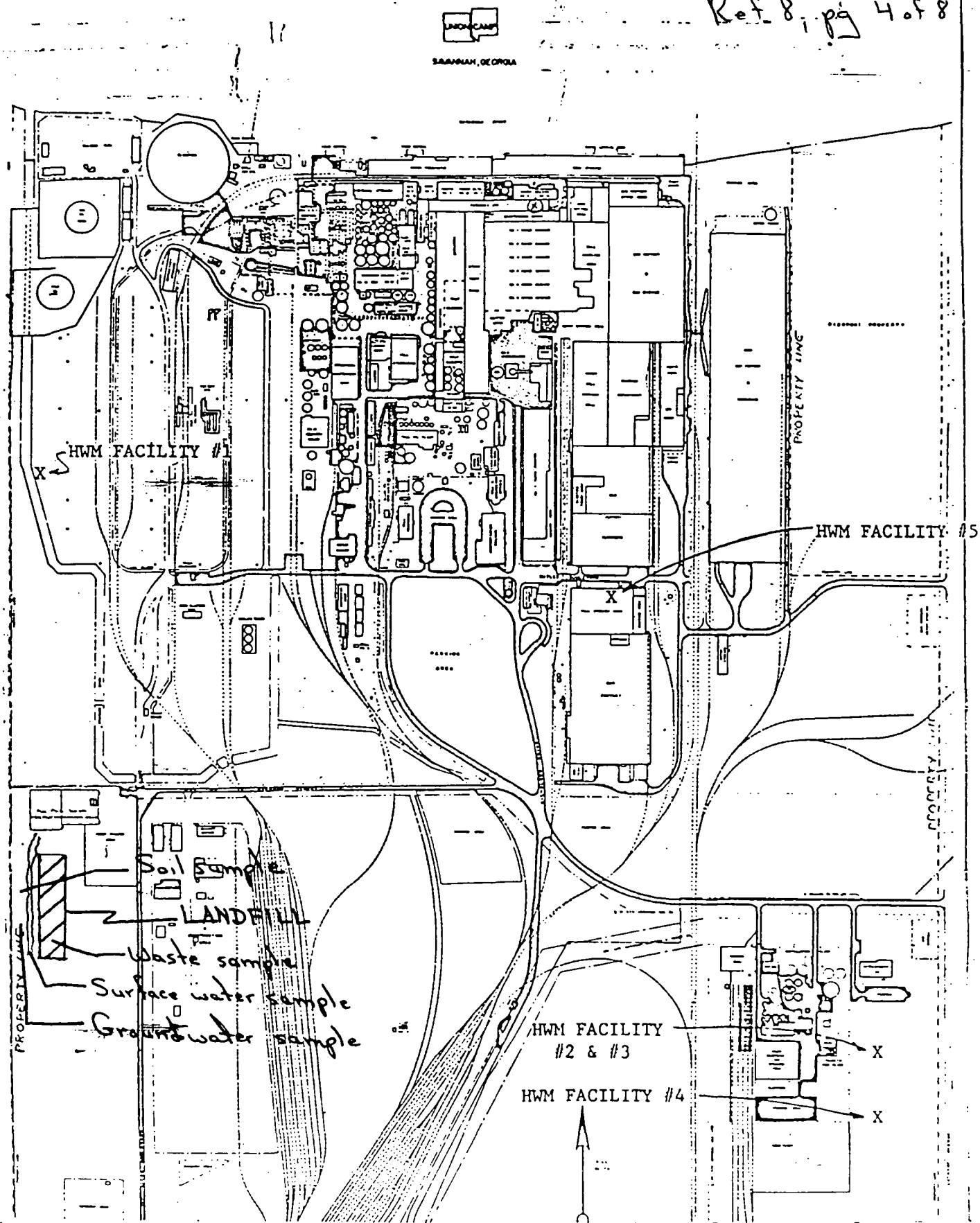
SIP - 08

4/87R

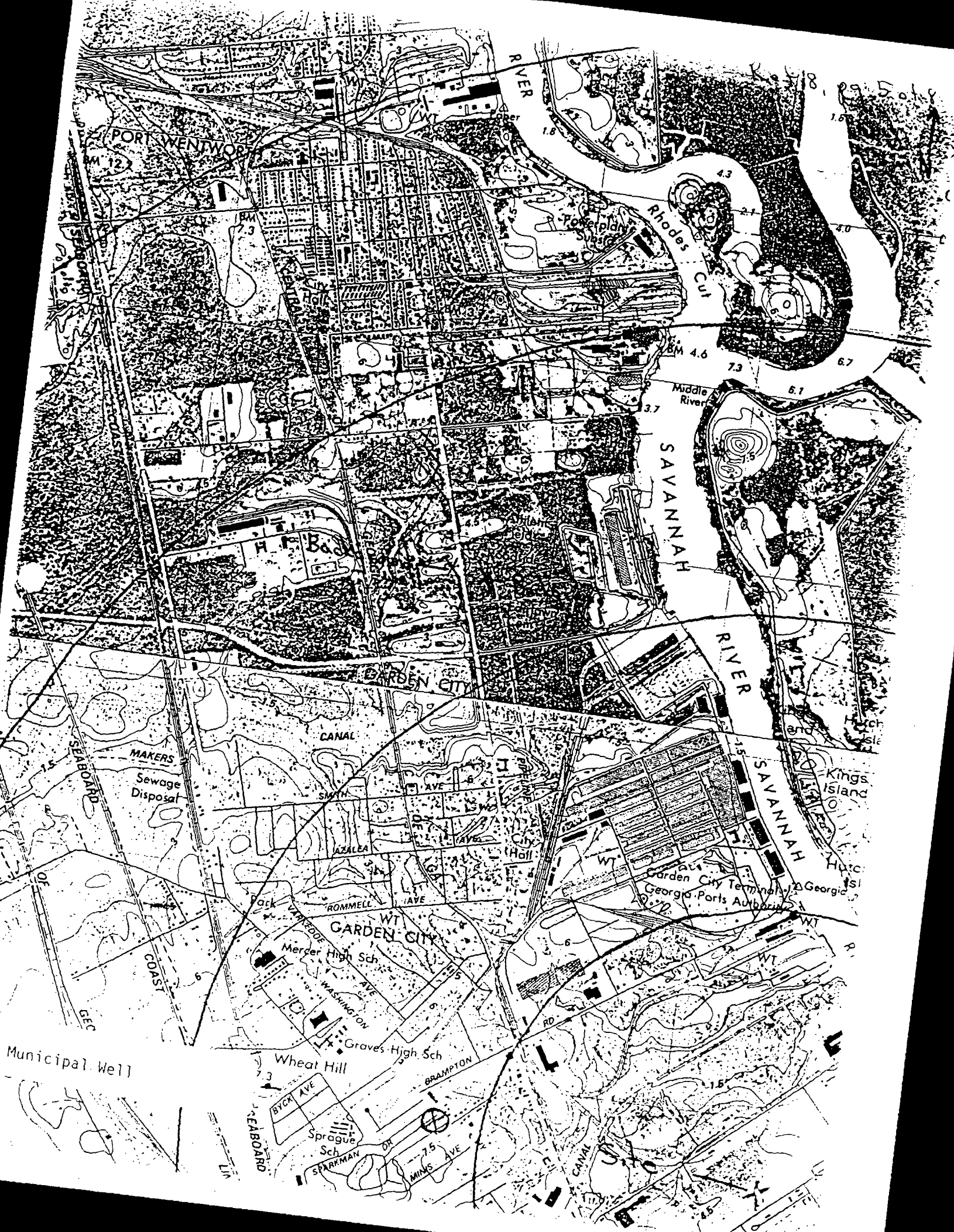
Continued from page 4.

V. FACILITY DRAWING *(see page 4)*

Ref 8, pg 4 of 8



Union Camp Hazardous Waste Facilities are Drawn Approximately to Scale on Pages 5B, 5C and 5D. Their Relationship to Property Boundaries is Shown By This Plant Layout. Refer to topographic map of Form 1, item VI for complete property boundaries.


PORT WENTWORTH
RIVER
Rhodes Cut
Middle River
SAVANNAH
RIVER
GARDEN CITY
CANAL
MAKERS
Sewage Disposal
SEABOARD
COAST
SMYTH
AZALEA
ROMMELL
AVE
Park
VARNADOE
Mercer High Sch
WASHINGTON
Graves High Sch
Wheat Hill
BRAMPTON
BYCK
Sprague Sch
SPARKMAN
DR
MINS
RD
City Hall
Garden City Terminal
Georgia Ports Authority
Kings Island
Municipal Well
WT
BM 12
BM 7.3
BM 4.6

Ref 8,
pg 6 of 8

County Name Chatham
Picture No. 1 of 5
Site Name Union Camp
Date 8/25/88 Weather 90°F - Sunny
Direction Facing North
Photographer Elizabeth Tapp
Program Site Investigation
Explanation Waste sample from top of landfill

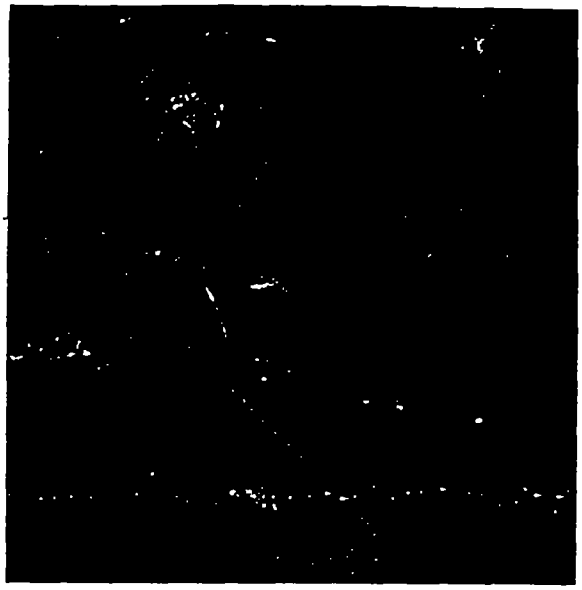
Other

County Name Chatham
Picture No. 2 of 5
Site Name Union Camp
Date 8/25/88 Weather 90°F - Sunny
Direction Facing North east
Photographer Elizabeth Tapp
Program Site Investigation
Explanation On-site soil composite

Other

County Name Chatham Ref 8 pg 7 of 8
Picture No. 3 of 5
Site Name Union Camp
Date 8/25/88 Weather 90°F-sunny
Direction Facing North
Photographer Elizabeth Topp
Program Site Investigation
Explanation Site of on-site water sample from ditch adjacent to landfill.
Other

County Name Chatham
Picture No. 4 of 5
Site Name Union Camp
Date 8/25/88 Weather 90°F-sunny
Direction Facing South
Photographer Elizabeth Topp
Program Site Investigation
Explanation On-site groundwater sample.
Other



K-58, 89 8.22

County Name Chatham

Picture No. 5 of 5

Site Name Union Camp

Date 8/25/88 Weather 90°F- sunny

Direction Facing West

Photographer Elizabeth Topp

Program Site Investigation

Explanation Background soil sample.

Other

County Name

Picture No. _____ of _____

Site Name

Date _____ Weather

Direction Facing

Photographer

Program

Explanation

Other

Reference No. 6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E
ATLANTA, GEORGIA 30365

March 31, 1993

Ms. Susan Rusher
Site Manager
Dynamac Corporation
230 Peachtree Street, N.W., Suite 500
Atlanta, GA 30303

RE: 4-RIN-00834-93

Dear Ms. Rusher:

This is in response to your Freedom of Information Act (FOIA) request regarding Federal Reporting Data Systems Report on Chatham County, Georgia.

Please find enclosed the requested material.

Fees are waived as de minimis.

Should you have questions, please contact me at 404/347-4450.

Sincerely yours,

Len Dangerfield, FOIA Coordinator
Water Management Division

Enclosure

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510000

SYSTEM NAME : GARDEN CITY PHONE: (912) 966-7777
SYSTEM ADDRESS: CITY OF GARDEN CITY
POB 7548
DEN CITY GA 31418

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 4

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	7,410	NUMBER OF SERVICES:	2,800	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			08	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320648	0810912		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0320708	0810858		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	103	DRILLED WELL #3	G	P	S	0320607	0810858		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	104	DRILLED WELL #4	G	P	S	0320526	0810902		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	105	DRILLED WELL #5	G	P	S	0320516	0811026		01	DISINFECTION	GASEOUS CHLORINATION, POST

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510000

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/86	86E0001	86V0001
				SIA	09/30/84	84E0001	84V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510000

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	10/01/85	001		000		86V0001	3000	03	06/30/84	001		007		84V0001

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510003

SYSTEM NAME : SAVANNAH-MAIN PHONE: (912) 651-6415
SYSTEM ADDRESS: CITY OF SAVANNAH
POB 1027
ANNAH GA 31402

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 4

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:			
POPULATION SERVED:	150,558	NUMBER OF SERVICES:	57,907	SEASON START :		SEASON END :			
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G		
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :			

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320130	0810447		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0320417	0810651		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	103	DRILLED WELL #3	G	P	S	0320414	0810643		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	104	DRILLED WELL #4	G	P	S	0320404	0810621		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	105	DRILLED WELL #5	G	P	S	0320352	0810549		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	106	DRILLED WELL #6	G	P	S	0320027	0810531		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	107	DRILLED WELL #7	G	P	S	0320248	0810503		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	108	DRILLED WELL #8	G	P	S	0320322	0810400		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	109	DRILLED WELL #9	G	P	S	0320221	0810612		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	110	DRILLED WELL 10	G	P	S	0320525	0810745		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	111	DRILLED WELL 11	G	P	S	0320351	0810332		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	112	DRILLED WELL 12	G	P	S	0320318	0810558		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	113	DRILLED WELL 13	G	P	S	0315949	0810659		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	114	DRILLED WELL 14	G	P	S	0315825	0810826		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	115	DRILLED WELL 15	G	P	S	0315921	0810839		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	116	DRILLED WELL 16	G	P	S	0320433	0810257		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	123	DRILLED WELL 23	G	P	S	0315805	0810912		01	DISINFECTION	GASEOUS CHLORINATION, POST

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SRC  125  DRILLED WELL 25   G     P     S     0320221 0810853              01  DISINFECTION       GASEOUS CHLORINATION, POST
SRC  126  DRILLED WELL 26   G     P     S     0315628 0810856              01  DISINFECTION       GASEOUS CHLORINATION, POST
SRC  127  DRILLED WELL 27   G     P     S     0315910 0810919              01  DISINFECTION       GASEOUS CHLORINATION, POST
LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:
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FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510003

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
5000	51	07/01/92	006				9399991								

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510014

SYSTEM NAME : AZALEA MOBILE HOME PLAZA PHONE: (912) 234-2811
SYSTEM ADDRESS: TRANS-WORLD INVESTMENT CO
4711 OGEECHEE RD.
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	475	NUMBER OF SERVICES:	196	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01				051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320235	0811049		01	DISINFECTION	HYPOCHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0320235	0811049		01	DISINFECTION	HYPOCHLORINATION, POST
SRC	103	DRILLED WELL #3	G	P	S	0320235	0811049		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510014

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	01/17/90	9090001	9089001

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510014

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3100	23	10/01/91	001				9200002

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	12/01/89	001	01/17/90	000		9089001

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510017

SYSTEM NAME : CROSBY MOBILE ESTATES PHONE: (912) 232-1221
SYSTEM ADDRESS: CROSBY MOBILE ESTATES
5231 OGEECHEE ROAD
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	86	NUMBER OF SERVICES:	33	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320140	0811125		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510017

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/86	86E0001	86V0001
				SIE	09/30/86	86E0002	86V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510017

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	12/01/85	001		000		86V0001
3000	03	11/01/80	001				8102639
3000	03	02/01/81	001				8102641
3000	03	05/01/80	001				8002815
3000	03	07/01/80	001				8002817

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	10/01/80	001				8102638
3000	03	12/01/80	001				8102640
3000	03	04/01/80	001				8002814
3000	03	06/01/80	001				8002816
3000	03	09/01/80	001				8002818

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510022

SYSTEM NAME : DYCHES MOBILE ESTATES PHONE: (912) 355-6633
SYSTEM ADDRESS: DYCHES MOBILE ESTATES
280 EISENHOWER DRIVE
ANNAH GA 31406

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	215	NUMBER OF SERVICES:	81	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0315929	0810927		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510022

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	05/24/91	9191002	9191002
				SIE	03/13/91	9191001	
				SIA	12/15/89	89E0002	8904303
				SIE	12/15/89	89E0001	8904303

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510022

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3100	23	04/01/91	001				9191002	3000	03	08/01/89	001		000		8904303
3000	03	11/01/79	001				8002001	3000	03	12/01/79	001				8002002
3000	03	01/01/80	001				8002003	3000	03	05/01/80	001				8002004

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510031

SYSTEM NAME : HOLIDAY MOBILE PARK PHONE:
SYSTEM ADDRESS: HOLIDAY MOBILE HOME PARK
138 SALT CREEK ROAD LOT 1
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	130	NUMBER OF SERVICES:	33	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320258	0811116		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510035

SYSTEM NAME : NORTONS TRAILER PARK PHONE: (912) 234-7682
SYSTEM ADDRESS: NORTON TRAILER PARK
102 BURKHALTER ROAD
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	116	NUMBER OF SERVICES:	51	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320221	0811101		01	DISINFECTION	HYPOCHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0320221	0811101		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510035

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/86	86E0001	8600055
				SIE	09/30/86	86E0002	8600055

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510035

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	02	09/01/86	001			26.00000000	8600055								

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510042

SYSTEM NAME : PLANTATION INN MOBILE ESTATES PHONE: (912) 897-3088
SYSTEM ADDRESS: PLANTATION INN MHP
129 WINCHESTER DR.
ANNAH GA 31410

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	200	NUMBER OF SERVICES:	88	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320228	0811118		01	DISINFECTION	HYPOCHLORINATION, POST
PLT	950	PLANTATION INN	O		H	0320248	0810054				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510042

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/87	87E0001	8701612
				SIE	09/30/87	87E0002	8701612
				SIA	09/30/86	86E0001	8600056
				SIE	09/30/86	86E0002	8600056
				SIA	09/30/85	85E0001	85V0001
				SIE	09/30/85	85E0002	85V0001
				SIF	09/30/85	85E0003	85V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
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NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510042

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	09/01/87	001		000		8701612	3000	03	09/01/86	001		000		8600056
3000	03	01/01/85	001		000		85V0001								

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510049

SYSTEM NAME : SOUTHSIDE MOBILE ESTATES PHONE: (912) 355-6633
SYSTEM ADDRESS: DYCHES CONSTRUCTION COMPANY
280 EISENHOWER DRIVE
ANNAH GA 31406

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	300	NUMBER OF SERVICES:	106	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0315941	0810908		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510049

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	05/24/91	9191002	9191002
				SIE	03/13/91	9191001	

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510049

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3100	23	04/01/91	001				9191002	3000	03	07/01/81	001				8102107
3000	03	11/01/79	001				8002256	3000	03	12/01/79	001				8002257
3000	03	01/01/80	001				8002258	3000	03	05/01/80	001				8002259

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510051

SYSTEM NAME : SUBURBANITE VILLAGE PHONE: (912) 964-7675
SYSTEM ADDRESS: P & H ENTERPRISES
1518 DEAN FOREST ROAD
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	486	NUMBER OF SERVICES:	187	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01				051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320411	0811117		01	DISINFECTION	HYPOCHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0315247	0810609		01	DISINFECTION	HYPOCHLORINATION, POST
SRC	103	DRILLED WELL #3	G	P	S	0315742	0810609		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510051

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/87	87E0001	8701193
				SIE	09/30/87	87E0002	8701193

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
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FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510051

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	05/01/87	001		000		8701193								

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510055

SYSTEM NAME : VICKS MOBILE HOME PARK PHONE: (912) 352-3376
SYSTEM ADDRESS: VICK'S MOBILE HOME PARK
10509 MIDDLEGROUND ROAD
ANNAH GA 31406

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	247	NUMBER OF SERVICES:	70	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0315936	0810914		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510055

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	11/16/89	9089001	9089001
				SIA	09/30/84	84E0001	84V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510055

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	10/01/89	001	11/16/89	000		9089001	3000	02	06/30/84	001			2.00000000	84V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510089

SYSTEM NAME : NASSAU WOODS PHONE: (912) 354-2313
SYSTEM ADDRESS: NASSAU WOODS MHP
6605 ABERCORN STREET
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	585	NUMBER OF SERVICES:	225	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01				051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320441	0811116		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510092

SYSTEM NAME : DERENNE PLAZA CONDO PHONE: (912) 234-7205
SYSTEM ADDRESS: THE DERENNE PLAZA OWNERS ASSO
24 EAST LIBERTY STREET, APT#83
ANNAH GA 31401

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR.:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	86	NUMBER OF SERVICES:	55	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320405	0810611		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
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FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510092

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/86	86E0001	86V0001
				SIE	09/30/86	86E0002	86V0001
				SIA	09/30/85	85E0001	85V0001
				SIE	09/30/85	85E0002	85V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510092

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	11/01/85	001		000		86V0001
3000	03	10/01/80	001				8101491
3000	03	01/01/80	001				8001637

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	12/01/84	001		000		85V0001
3000	03	12/01/79	001				8001636
3000	03	07/01/80	001				8001638

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510103

SYSTEM NAME : LAKESIDE MOBILE HOME PARK PHONE: (912) 234-9077
SYSTEM ADDRESS: LAKESIDE MOBILE HOME PARK
4504 OGEECHEE ROAD
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	133	NUMBER OF SERVICES:	38	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320222	0810908		01	DISINFECTION	HYPOCHLORINATION, POST

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510103

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/85	85E0001	85V0001
				SIE	09/30/85	85E0002	85V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510103

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	10/01/84	001		000		85V0001
3000	03	02/01/80	001				8001285
3000	03	05/01/80	001				8001287

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	11/01/79	001				8001284
3000	03	04/01/80	001				8001286

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

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FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510107

SYSTEM NAME : USA-HUNTER AF MAIN PHONE: (912) 767-8356
SYSTEM ADDRESS: HQ 24TH INF DIV M & FT STEWART
ATTN+|: AFZP-DEV
T STEWART GA 31314

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 1

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR : A INV UPDATE DATE : 03/17/93 BEGIN DATE : DEACTIVATION DATE:
POPULATION SERVED: 6,021 NUMBER OF SERVICES: 694 SEASON START : SEASON END :
REGULATE BY : S INV INSERT DATE : 03/12/80 LAST UPDATE DATE: 03/17/93 PRIMARY SOURCE : G
SURFACE % : GROUND % : PUR SURFACE % : PUR GROUND % :

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320109	0810747		01	DISINFECTION	GASEOUS CHLORINATION, POST
SRC	102	DRILLED WELL #2	G	P	S	0320139	0810806		01	DISINFECTION	GASEOUS CHLORINATION, POST
PLT	950	USA-HUNTER AF M	O		H	0315454	0813336				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510107

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	11/16/89	9089004	9089003
				SIA	09/30/88	88E0001	8802722
							8802723
				SIE	09/30/88	88E0002	8802722
							8802723
				SIA	09/30/86	86E0001	86V0001
				SIA	09/30/85	85E0001	85V0001
				SIE	09/30/85	85E0002	85V0001

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510107

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	10/01/89	001	11/16/89	000		9089003
3000	03	05/01/88	001		000		8802723
3000	03	09/01/85	001		000		85V0001
3000	03	07/01/80	001				8002179
3000	03	09/01/80	001				8002181

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	04/01/88	001		000		8802722
3000	03	10/01/85	001		000		86V0001
3000	03	12/01/80	001				8102015
3000	03	08/01/80	001				8002180

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510111

SYSTEM NAME : LIVE OAK MOBILE HOME PARK PHONE: (912) 927-6110
SYSTEM ADDRESS: LIVE OAK MOBILE HOME PARK
3001 LITTLE NECK ROAD
ANNAH GA 31419

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	35	NUMBER OF SERVICES:	21	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	02/03/81	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01				051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #	G	P	S	0320458	0811141		01	DISINFECTION	HYPOCHLORINATION, POST.
PLT	950	LIVE OAK MOBILE	O		H	0320248	0810054				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510111

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SFO	03/12/91	9191009	9191003
							9190001
							9090001
				SFJ	02/15/91	9191006	
				SIF	05/08/91	9191007	9191003
							9190001
							9090001
				SIE	11/27/90	9190001	9190001
				SIF	12/03/90	9190002	9190001
				SIE	01/23/91	9191003	
				SIF	02/01/91	9191004	
				SFJ	02/11/91	9191005	9190001
							9090001
				SIE	09/14/90	9090001	9090001
				SIA	12/15/89	89E0004	8904030
				SIE	12/15/89	89E0003	8904030
				SIA	09/30/89	89E0001	8904030
				SIE	09/30/89	89E0002	8904030
				SIA	09/30/84	84E0001	84V0001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510111

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3100	23	03/01/91	001				9191003	3000	03	10/01/90	001	11/10/90	000		9190001
3000	03	08/01/90	001	09/14/90	000		9090001	3000	03	06/01/89	001		000		8904030
3000	02	04/30/84	001			6.00000000	84V0001	3000	03	11/01/80	001				8102151
3000	03	12/01/80	001				8102152	3000	03	02/01/81	001				8102153
3000	03	01/01/80	001				8002297	3000	03	04/01/80	001				8002298
3000	03	09/01/80	001				8002299								

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510123

SYSTEM NAME : DERRICK SUBDIVISION PHONE:
SYSTEM ADDRESS: DERRICK SUBDIVISION
P. O. BOX 23353
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR:	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	190	NUMBER OF SERVICES:	56	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	06/17/87	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01				051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320204	0811251		01	DISINFECTION	HYPOCHLORINATION, POST
PLT	950	DERRICK SUBDIVI	O		H	0320459	0810600				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510123

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/87	87E0001	8700841 8701199
				SIE	09/30/87	87E0002	8700841 8701199

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510123

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	02/01/87	001		000		8700841	3000	03	06/01/87	001		000		8701199

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510138

SYSTEM NAME : BASHLORS MOBILE HOME PARK PHONE: (912) 598-0808
SYSTEM ADDRESS: BASHLORS MOBILE HOME PARK
4 VANDY COURT
ANNAH GA 31411

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	65	NUMBER OF SERVICES:	24	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320505	0811152		01	NO TREATMENT AT SO	NO TREATMENT / NOT APPLICABLE
PLT	950	BASHLORS MOBILE	O		H	0320000	0810048				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510138

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	12/15/89	89E0002	8904305
				SIE	12/15/89	89E0001	8904305
				SIA	09/30/88	88E0001	8802097
				SIE	09/30/88	88E0002	8802097

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510138

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	07/01/89	001		000		8904305	3000	03	11/01/87	001		000		8802097

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510139

SYSTEM NAME : HEATHCOTE FARMS SUBDIVISION PHONE: (404) 728-9971
SYSTEM ADDRESS: CHATHAM W/CO./HEATHCOTE
2719 BUFORD HIGHWAY
ANTA GA 30324

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	*RESIDENTIAL	

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	70	NUMBER OF SERVICES:	25	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320236	0811020		01	NO TREATMENT AT SO	NO TREATMENT / NOT APPLICABLE

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510223

SYSTEM NAME : J. R. ROGERS MOBILE HOME CT. PHONE: (912) 897-5306
SYSTEM ADDRESS: ROGERS MOBILE HOME COURT
POB 3922
ANNAH GA 31404

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	65	NUMBER OF SERVICES:	26	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051	7520		

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320241	0811142		01	NO TREATMENT AT SO	NO TREATMENT / NOT APPLICABLE
PLT	950	J. R. ROGERS MO	O		H	0320159	0810300				

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510223

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIA	09/30/87	87E0001	8701631
				SIE	09/30/87	87E0002	8701631

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510223

VIOLATIONS								VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID	CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	02	08/01/87	001			3.00000000	8701631								

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510235

SYSTEM NAME : DEAN FOREST ROAD TRAILER PARK PHONE: (912) 236-9103
SYSTEM ADDRESS: DEAN FOREST TRAILER PARK
1306 DEAN FOREST ROAD
ANNAH GA 31405

GRANT ELIGIBLE : Y
STATUS : CAC
PLANT TYPE : C
OWNER TYPE : 2

ADDRESSES: NONE

PLANT SERVICE AREA: (* INDICATES PRIMARY SERVICE AREA)

ID	MAJOR CATEGORY	SUBCATEGORIES
01	RESIDENTIAL	*MOBILE HOME PARK

VISITS: NONE

ACTIVE INDICATOR :	A	INV UPDATE DATE :	03/17/93	BEGIN DATE :		DEACTIVATION DATE:	
POPULATION SERVED:	65	NUMBER OF SERVICES:	25	SEASON START :		SEASON END :	
REGULATE BY :	S	INV INSERT DATE :	03/12/80	LAST UPDATE DATE:	03/17/93	PRIMARY SOURCE :	G
SURFACE % :		GROUND % :		PUR SURFACE % :		PUR GROUND % :	

GEOGRAPHIC AREAS SERVED :

ID	ADMIN REGION	ADMIN DIST	CONG DIST	STATE COUNTY	FIPS COUNTY	MSA	INDIAN RESV CD	CITY
01			01	051	051			

SOURCE (SRC) /ENTRY POINT (EPT) /PLANT (PLT) INFORMATION:

TYPE	ID	NAME	CODE	AVAIL	DATA ORG	LAT	LONG	SELLER ID	TREATMENTS ID	OBJECTIVE	PROCESS
SRC	101	DRILLED WELL #1	G	P	S	0320308	0811236		01	NO TREATMENT AT SO	NO TREATMENT / NOT APPLICABLE
PLT	950	DEAN FOREST ROA	O		H	0320459	0810600				

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510235

VARIANCE OR EXEMPTION				ENFORCEMENTS			
CONTAMINANT ID	MODIFIED MCL	VAR/EXMP TYPE	VAR/EXMP ID	LEGAL STATUS	DATE	ID	RELATED VIOLS
				SIE	05/24/91	9191003	9191002
				SIF	11/20/90	9190002	
				SIE	01/17/90	9090001	9089001

LOCATE STATEMENT:
LOCATE (0) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

FEDERAL REPORTING DATA SYSTEM - FRDS-II
ANNUAL DATA EVALUATION REPORT
FOIA #834MFOR DYNAMIC CORP.
NO SORT REQUESTED

EPA REGION: 04 PRIMACY STATE: GA PRIMACY: Y PWS ID: GA0510235

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3100	23	04/01/91	001				9191002
3000	03	11/01/79	001				8002904

VIOLATIONS							
CONT ID	TY	BEGIN DATE	DUR	AWARE DATE	SMP TKN	ANALYTICAL RESULT	VIO ID
3000	03	12/01/89	001	01/17/90	000		9089001
3000	03	12/01/79	001				8002905

LOCATE STATEMENT:
LOCATE (O) C100 WH C3 EQ GA AND C509 EQ 051 AND NK C107 EQ A AND NK C109 EQ C:

1990 CPH-1-12

1990 Census of Population and Housing

Summary Population and Housing Characteristics

Georgia

Issued August 1991

U.S. Department of Commerce
Robert A. Mosbacher, Secretary
Rockwell A. Schnabel, Deputy Secretary

Economics and Statistics Administration
Michael R. Darby, Under Secretary
for Economic Affairs and Administrator

BUREAU OF THE CENSUS
Barbara Everitt Bryant, Director

Table 6. Household, Family, and Group Quarters Characteristics: 1990

[For definitions of terms and meanings of symbols, see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households			Nonfamily households				Persons per—		Persons in group quarters		
							Householder living alone							
			Total	Married-couple family	Female householder, no husband present	Total	Total	65 years and over		Household	Family	Total	Institutionalized persons	Other persons in group quarters
								Total	Female					
The State	6 304 583	2 366 615	1 713 072	1 306 756	329 641	653 543	537 702	165 027	149 417	2.66	3.16	173 633	87 266	86 367
COUNTY														
Appling County	15 580	5 834	4 275	3 423	687	1 559	1 433	689	535	2.67	3.21	164	164	-
Atkinson County	6 209	2 210	1 647	1 299	268	563	517	282	229	2.81	3.33	4	4	-
Bacon County	9 436	3 442	2 645	2 000	539	797	742	376	301	2.74	3.17	130	121	9
Baker County	3 610	1 300	949	666	220	351	326	174	148	2.78	3.33	5	5	-
Baldwin County	32 270	12 165	8 735	6 095	2 183	3 430	2 770	1 007	815	2.65	3.14	7 260	6 515	745
Banks County	10 292	3 775	2 973	2 563	283	802	724	353	281	2.73	3.13	16	16	-
Barrow County	29 489	10 676	8 361	6 828	1 149	2 315	2 016	941	765	2.76	3.15	232	209	23
Bartow County	55 485	20 091	15 665	12 828	2 149	4 426	3 861	1 605	1 326	2.76	3.17	426	336	90
Ben Hill County	15 923	5 972	4 343	3 153	1 007	1 629	1 505	766	620	2.67	3.22	322	252	70
Berrien County	13 859	5 149	3 950	3 208	569	1 199	1 105	530	427	2.69	3.13	294	108	186
Bibb County	145 108	56 307	39 301	26 742	10 753	17 006	14 892	5 916	4 812	2.58	3.14	4 859	2 904	1 955
Bleckley County	10 005	3 816	2 864	2 223	534	952	884	452	369	2.62	3.09	425	121	304
Brantley County	11 069	3 811	3 109	2 598	384	702	629	278	217	2.90	3.25	8	8	-
Brooks County	15 026	5 392	4 040	2 881	974	1 352	1 223	628	496	2.79	3.30	372	279	93
Bryan County	15 301	5 070	4 226	3 514	554	844	735	305	218	3.02	3.34	137	-	137
Bulloch County	39 458	14 984	9 685	7 449	1 782	5 299	3 488	1 293	1 042	2.63	3.15	3 667	607	3 060
Burke County	20 363	7 037	5 288	3 482	1 543	1 749	1 573	738	564	2.89	3.41	216	216	-
Butts County	13 557	4 696	3 697	2 822	686	999	872	408	308	2.89	3.31	1 769	1 653	116
Calhoun County	4 916	1 794	1 269	837	366	525	491	292	234	2.74	3.36	97	97	-
Camden County	27 328	9 459	7 472	6 152	1 003	1 987	1 609	415	311	2 89	3.28	2 839	130	2 709
Candler County	7 449	2 828	2 042	1 536	415	786	717	361	286	2.63	3 17	295	295	-
Carroll County	68 725	25 370	18 969	15 272	2 958	6 401	5 361	2 106	1 744	2 71	3.16	2 697	758	1 939
Catoosa County	42 109	15 745	12 366	10 301	1 621	3 379	3 033	1 306	1 096	2.67	3.06	355	305	50
Charlton County	8 384	2 911	2 257	1 748	407	654	573	249	190	2 88	3.32	112	112	-
Chatham County	209 677	81 111	56 560	40 929	12 997	24 551	21 036	8 128	6 444	2 59	3.14	7 258	3 936	3 322
Chattahoochee County	10 616	2 884	2 637	2 370	214	247	216	62	47	3.68	3 89	6 318	70	6 248
Chattooga County	22 059	8 467	6 393	5 041	1 070	2 074	1 915	1 039	843	2 61	3.06	183	183	-
Cherokee County	89 441	31 309	25 760	22 476	2 324	5 549	4 415	1 430	1 152	2 86	3 16	763	436	327
Clarke County	79 604	33 170	18 182	12 864	4 401	14 988	9 547	2 327	1 868	2 40	3 02	7 990	934	7 056
Clay County	3 287	1 210	874	556	258	336	318	182	138	2 72	3.30	77	74	3
Clayton County	180 489	65 523	48 734	37 003	9 216	16 789	13 035	2 392	1 935	2 75	3 19	1 563	1 246	317
Clinch County	6 034	2 173	1 655	1 257	313	518	476	208	170	2 78	3 25	126	96	30
Cobb County	444 691	171 288	120 113	99 966	15 518	51 175	38 537	6 826	5 634	2 60	3 10	3 054	1 978	1 076
Coffee County	29 015	10 541	7 981	6 025	1 614	2 560	2 319	1 038	841	2.75	3.22	577	237	340
Colquitt County	34 937	12 980	9 736	7 242	2 083	3 244	2 966	1 582	1 299	2.69	3 16	1 708	543	1 165
Columbia County	64 929	21 841	18 315	15 649	2 054	3 526	2 939	832	661	2 97	3.28	1 102	948	154
Cook County	13 172	4 825	3 607	2 789	649	1 218	1 116	589	489	2.73	3 22	284	128	156
Coweta County	53 381	18 930	15 020	11 907	2 482	3 910	3 394	1 449	1 186	2 82	3.20	472	456	16
Crawford County	8 809	3 069	2 412	1 896	396	657	577	238	178	2 87	3 29	182	108	74
Crisp County	19 599	7 287	5 300	3 595	1 491	1 987	1 808	678	717	2 69	3 23	412	408	4
Dade County	12 563	4 661	3 735	3 170	429	926	856	399	298	2 70	3 06	584	209	375
Dawson County	9 377	3 360	2 734	2 357	268	626	536	186	151	2 79	3 12	52	29	23
Decatur County	24 748	8 962	6 675	4 743	1 634	2 287	2 082	1 028	819	2 76	3 27	763	446	317
DeKalb County	535 454	208 690	137 603	96 941	31 277	71 087	52 645	11 728	9 789	2 57	3 12	10 383	6 283	4 100
Dodge County	16 627	6 387	4 687	3 550	953	1 700	1 609	844	684	2.60	3 12	980	980	-
Dooly County	9 730	3 557	2 582	1 779	693	975	913	509	413	2 74	3.31	171	143	28
Dougherty County	93 017	34 163	25 101	16 525	7 500	9 062	7 966	2 767	2 224	2 72	3.24	3 294	1 156	2 138
Douglas County	70 334	24 277	19 739	16 547	2 415	4 538	3 643	1 107	887	2.90	3.22	786	664	122
Early County	11 649	4 263	3 113	2 207	740	1 150	1 064	604	475	2 73	3 29	205	205	-
Echols County	2 319	816	654	548	78	162	153	63	48	2.84	3 26	15	-	15
Effingham County	25 636	8 759	7 149	5 921	928	1 610	1 422	560	439	2.93	3.28	51	51	-
Elbert County	18 634	7 115	5 314	4 078	1 008	1 801	1 680	883	719	2 62	3 10	315	263	52
Emanuel County	20 210	7 420	5 501	4 069	1 205	1 919	1 799	937	740	2.72	3.25	336	326	10
Evans County	8 374	3 144	2 284	1 671	514	860	781	391	300	2.66	3.19	350	319	31
Fannin County	15 863	6 334	4 844	4 126	528	1 490	1 401	753	590	2.50	2.92	129	120	9
Fayette County	62 218	21 054	18 018	16 110	1 439	2 036	2 640	1 001	826	2.96	3.23	197	197	-
Floyd County	77 939	30 518	22 518	17 744	3 852	8 000	7 203	3 506	2 891	2 55	3.02	3 312	1 657	1 655
Forsyth County	43 792	15 938	12 787	11 164	1 113	3 151	2 590	964	775	2.75	3.07	291	276	15
Franklin County	16 286	6 365	4 787	3 960	629	1 578	1 480	776	604	2 56	3.02	366	166	198
Fulton County	626 974	257 140	155 887	99 206	47 519	101 253	79 746	21 475	17 301	2.44	3 11	21 977	8 405	13 572
Gilmer County	13 179	5 072	3 940	3 352	454	1 132	1 035	543	437	2 60	2 99	189	189	-
Glascock County	2 243	867	649	541	84	218	196	98	72	2 59	3 04	114	114	-
Glynn County	61 437	23 947	17 308	13 214	3 345	6 639	5 647	2 319	1 840	2.57	3.04	1 059	645	414
Gordon County	34 749	12 778	9 939	8 238	1 320	2 839	2 530	1 116	917	2.72	3 13	323	322	1
Grady County	20 001	7 354	5 571	4 218	1 116	1 783	1 638	884	726	2 72	3.19	278	242	36
Greene County	11 663	4 083	3 012	2 058	791	1 071	974	503	385	2 86	3.42	130	107	23
Gwinnett County	351 247	126 971	96 396	82 398	10 481	30 575	22 501	3 637	3 035	2 77	3 18	1 663	1 559	104
Habersham County	25 817	9 966	7 672	6 525	846	2 294	2 108	973	787	2.59	3.00	1 804	1 493	311
Hall County	93 879	34 721	26 522	21 462	3 852	8 199	6 959	2 623	2 162	2.70	3.10	1 549	1 035	514
Hancock County	8 747	2 969	2 201	1 279	788	768	725	358	268	2.95	3 55	161	149	12
Haralson County	21 695	8 248	6 252	5 145	898	1 996	1 834	886	739	2 63	3 08	271	271	-
Harris County	17 624	6 454	5 092	4 169	714	1 362	1 234	559	421	2 73	3 12	164	164	-
Hart County	19 390	7 459	5 679	4 534	905	1 780	1 644	847	692	2.60	3 04	322	318	4
Heard County	8 498	3 093	2 398	1 912	364	695	613	280	209	2.75	3 17	130	125	5
Henry County	58 148	20 012	16 784	14 380	1 785	3 228	2 651	1 003	817	2 91	3 19	593	561	32
Houston County	87 924	32 433	24 695	19 712	3 997	7 738	6 677	1 708	1 420	2 71	3 15	1 284	655	629
Irwin County	8 520	3 142	2 350	1 763	489	792	752	402	319	2 71	3 23	129	129	-
Jackson County	29 295	10 721	8 353	6 865	1 093	2 368	2 086	969	781	2 73	3 13	710	546	164
Jasper County	8 389	3 036	2 307	1 755	428	729	644	303	232	2 76	3 21	64	64	-
Jeff Davis County	11 941	4 357	3 378	2 627	592	979	870	392	333	2 74	3 15	91	91	-
Jefferson County	16 999	6 093	4 489	2 925	1 354	1 604	1 497	779	609	2 79	3 35	409	409	-
Jenkins County	8 127	2 951	2 186	1 548	525	765	692	340	272	2 75	3 24	120	99	21
Johnson County	8 168	3 010	2 221	1 630	516	789	745	415	339	2 71	3 26	161	161	-
Jones County	20 519	7 300	5 801	4 605	936	1 499	1 343	470	363	2 81	3 21	220	188	32
Lamar County	12 759	4 669	3 568	2 704	703	1 101	1 001	487	385	2 73	3 18	279	120	159
Lanier County	5 460	1 965	1 505	1 144	297	460	418	186	148	2 78	3 22	71	63	8
Laurens County	38 830	14 514	10 822	8 092	2 294	3 692	3 374	1 589	1 271	2 68	3 16	1 158	1 102	56
Lee County	15 592	5 199	4 293	3 429	687	906	782	300	235	3 00	3 34	658	658	-
Liberty County	45 325	15 136	12 404	10 183	1 833	2 732	2 233	527	412	2 99	3 33	7 420	168	7 252
Lincoln County	7 397	2 702	2 059	1 557	387	643	593	305	231	2 74	3 21	45	28	17

Table 6. Household, Family, and Group Quarters Characteristics: 1990—Con.

[For definitions of terms and meanings of symbols see text]

State County Place and [In Selected States] County Subdivision	Persons in households	All households	Family households			Nonfamily households				Persons per—		Persons in group quarters		
							Householder living alone							
								65 years and over						
			Total	Married-couple family	Female householder no husband present	Total	Total	Total	Female	Household	Family	Total	Institutionalized persons	Other persons in group quarters
COUNTY—Con.														
Long County	6 119	2 196	1 683	1 383	218	513	447	185	136	2 79	3 22	83	4	79
Lowndes County	71 652	26 311	19 123	14 300	4 012	7 188	5 744	2 095	1 661	2 72	3 22	4 329	1 814	2 515
Lumpkin County	13 318	4 976	3 872	3 262	438	1 104	962	370	283	2 68	3 07	1 255	156	1 099
McDuffie County	19 862	7 270	5 508	3 985	1 286	1 762	1 558	676	539	2 73	3 19	257	232	25
McIntosh County	8 622	3 186	2 371	1 689	540	815	730	349	246	2 71	3 19	12	12	-
Macon County	12 826	4 388	3 322	2 099	1 046	1 066	991	513	412	2 92	3 46	288	288	-
Madison County	20 902	7 740	6 061	5 075	749	1 679	1 459	677	559	2 70	3 09	148	109	39
Marion County	5 512	1 962	1 524	1 132	317	438	392	203	166	2 81	3 22	78	78	-
Meriwether County	21 893	7 637	5 800	4 122	1 363	1 837	1 685	838	676	2 87	3 38	518	341	177
Miller County	6 184	2 336	1 741	1 334	319	595	554	316	250	2 65	3 14	96	96	-
Mitchell County	19 986	6 798	5 254	3 533	1 457	1 544	1 414	759	632	2 94	3 42	289	212	77
Monroe County	16 509	5 838	4 547	3 549	800	1 291	1 130	477	374	2 83	3 25	604	599	5
Montgomery County	6 714	2 493	1 842	1 432	323	651	599	313	235	2 69	3 20	449	213	236
Morgan County	12 705	4 399	3 442	2 588	681	957	854	417	329	2 89	3 32	178	158	20
Murray County	25 980	9 363	7 499	6 238	891	1 864	1 628	606	488	2 77	3 14	167	161	6
Muscogee County	171 700	65 858	47 235	33 380	11 803	18 623	16 122	5 847	4 716	2 61	3 12	7 578	2 963	4 615
Newton County	41 040	14 401	11 337	8 908	1 915	3 064	2 633	1 210	997	2 85	3 25	768	318	450
Oconee County	17 474	6 156	4 960	4 253	555	1 196	987	394	329	2 84	3 19	144	140	4
Oglethorpe County	9 681	3 581	2 748	2 168	448	833	737	317	240	2 70	3 14	82	82	-
Paulding County	41 289	14 326	11 999	10 350	1 216	2 327	1 964	772	598	2 88	3 17	322	309	13
Peach County	19 954	7 142	5 465	3 844	1 385	1 677	1 428	603	481	2 79	3 23	1 235	82	1 153
Pickens County	14 252	5 386	4 239	3 607	455	1 147	1 051	516	390	2 65	3 03	180	180	-
Pierce County	13 262	4 807	3 759	3 104	507	1 048	982	488	390	2 76	3 19	66	66	-
Pike County	10 100	3 526	2 824	2 385	317	702	647	321	255	2 86	3 26	124	124	-
Polk County	33 410	12 519	9 455	7 404	1 628	3 064	2 833	1 518	1 217	2 67	3 13	405	379	26
Pulaski County	7 986	3 098	2 185	1 584	504	913	842	432	348	2 58	3 15	122	122	-
Putnam County	13 856	5 229	3 938	3 043	702	1 291	1 118	429	330	2 65	3 07	281	277	4
Quitman County	2 205	857	626	428	167	231	214	112	72	2 57	3 06	4	-	4
Rabun County	11 460	4 630	3 477	2 940	412	1 153	1 036	524	404	2 48	2 89	188	166	22
Randolph County	7 694	2 815	2 003	1 301	595	812	773	463	365	2 73	3 36	329	104	225
Richmond County	179 514	68 675	47 685	32 988	12 384	20 990	17 907	5 732	4 570	2 61	3 18	10 205	3 423	6 782
Rockdale County	53 546	18 337	15 121	12 771	1 817	3 216	2 638	932	790	2 92	3 23	545	499	46
Schley County	3 581	1 315	964	739	178	351	324	171	153	2 72	3 25	7	7	-
Screven County	13 613	5 048	3 698	2 660	865	1 350	1 238	618	500	2 70	3 23	229	204	25
Seminole County	8 420	3 137	2 336	1 729	518	801	747	410	325	2 68	3 19	590	98	492
Spalding County	53 613	19 426	14 901	11 014	3 222	4 525	3 874	1 771	1 467	2 76	3 18	844	838	6
Stephens County	22 688	8 949	6 633	5 453	958	2 316	2 131	1 085	887	2 54	3 00	569	90	479
Stewart County	5 543	1 982	1 439	921	425	543	505	280	213	2 80	3 40	111	111	-
Sumter County	28 811	10 484	7 610	5 034	2 275	2 874	2 544	1 087	885	2 75	3 30	1 417	771	646
Talbot County	6 517	2 345	1 765	1 188	473	580	543	263	199	2 78	3 28	7	7	-
Taliaferro County	1 915	727	492	344	119	235	230	142	114	2 63	3 32	-	-	-
Tattnall County	15 251	5 845	4 272	3 276	826	1 573	1 436	733	580	2 61	3 11	2 471	2 189	282
Taylor County	7 632	2 804	2 070	1 431	530	734	675	367	302	2 72	3 24	10	10	-
Telfair County	10 641	4 017	2 901	2 080	688	1 116	1 044	590	470	2 65	3 20	359	344	15
Terrell County	10 508	3 738	2 772	1 823	804	966	887	488	393	2 81	3 34	145	145	-
Thomas County	38 325	14 323	10 644	7 604	2 564	3 679	3 342	1 624	1 333	2 68	3 16	661	580	81
Tift County	33 450	12 184	9 101	6 801	1 911	3 083	2 724	1 197	978	2 75	3 23	1 548	385	1 163
Toombs County	23 652	8 804	6 386	4 751	1 353	2 418	2 179	973	778	2 69	3 23	420	388	32
Towns County	6 362	2 812	2 056	1 815	183	756	712	367	285	2 26	2 69	392	78	314
Treutlen County	5 917	2 158	1 607	1 176	366	551	513	298	243	2 74	3 27	77	65	12
Troup County	54 500	20 371	14 980	11 053	3 292	5 391	4 771	2 231	1 827	2 68	3 18	1 036	711	325
Turner County	8 586	3 043	2 331	1 683	576	712	673	379	312	2 82	3 32	117	117	-
Twiggs County	9 650	3 296	2 570	1 896	553	726	665	291	222	2 93	3 39	156	151	5
Union County	11 769	4 709	3 653	3 182	355	1 056	980	535	406	2 50	2 88	224	221	3
Upson County	25 840	9 911	7 335	5 467	1 541	2 576	2 377	1 282	1 046	2 61	3 09	460	448	12
Walker County	57 524	21 697	16 887	13 896	2 336	4 810	4 355	2 111	1 758	2 65	3 05	816	806	10
Walton County	38 229	13 433	10 749	8 634	1 613	2 684	2 332	1 101	893	2 85	3 22	357	357	-
Ware County	33 788	13 046	9 416	7 068	1 945	3 630	3 311	1 624	1 317	2 59	3 12	1 683	1 593	90
Warren County	5 974	2 130	1 603	1 056	467	527	487	296	241	2 80	3 30	104	104	-
Washington County	18 789	6 739	4 985	3 396	1 330	1 754	1 606	776	624	2 79	3 32	323	311	12
Wayne County	21 761	7 922	6 113	4 803	1 053	1 809	1 670	783	606	2 75	3 19	595	582	13
Webster County	2 263	798	610	445	131	188	172	86	61	2 84	3 32	-	-	-
Wheeler County	4 817	1 786	1 331	1 028	235	455	441	273	225	2 70	3 21	86	65	21
White County	12 523	4 907	3 798	3 285	382	1 109	1 023	475	374	2 55	2 95	483	161	322
Whitfield County	71 808	26 859	20 506	16 611	2 940	6 353	5 455	1 995	1 633	2 67	3 08	654	571	83
Wilcox County	6 807	2 511	1 833	1 389	360	678	640	376	293	2 71	3 27	201	201	-
Wilkes County	10 511	4 022	2 932	2 132	646	1 090	1 008	566	415	2 61	3 12	86	86	-
Wilkinson County	10 183	3 619	2 755	2 032	616	864	788	352	274	2 81	3 31	45	45	-
Worth County	19 618	6 895	5 428	4 107	1 057	1 467	1 345	675	541	2 85	3 27	127	53	74
PLACE AND COUNTY SUBDIVISION														
Abbeville city	809	303	221	153	54	82	76	49	40	2 67	3 16	98	98	-
Dodge County	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilcox County	809	303	221	153	54	82	76	49	40	2 67	3 16	98	98	-
Acworth city, Cobb County	4 517	1 758	1 260	1 017	199	498	402	153	137	2 57	3 04	2	2	-
Adairsville city, Bartow County	2 131	772	587	391	160	185	168	95	78	2 76	3 19	-	-	-
Adel city, Cook County	4 927	1 793	1 289	859	359	504	466	246	207	2 75	3 33	166	128	38
Adrian city	615	238	170	116	45	68	62	33	30	2 58	3 08	-	-	-
Emanuel County	293	113	86	64	18	27	26	15	14	2 59	2 98	-	-	-
Johnson County	322	125	84	52	27	41	36	18	16	2 58	3 18	-	-	-
Ailey city, Montgomery County	484	183	135	100	24	48	45	26	22	2 64	3 15	95	-	95
Alamo city, Wheeler County	849	319	232	162	56	87	85	58	49	2 66	3 24	6	6	-
Alapaha town, Berrien County	789	287	222	146	64	65	63	27	23	2 75	3 20	23	-	23
Albany city, Dougherty County	75 233	27 926	19 977	12 351	6 724	7 949	6 990	2 482	1 992	2 69	3 25	2 889	1 129	1 760
Aldora town, Lamar County	127	46	35	30	4	11	11	8	5	2 76	3 29	-	-	-
Allenhurst town, Liberty County	594	210	163	138	20	47	38	11	10	2 83	3 20	-	-	-
Allentown town	273	105	80	65	14	25	23	13	11	2 60	3 05	-	-	-
Bleckley County	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laurens County	2	1	1	1	-	-	-	-	-	2 00	2 00	-	-	-
Twiggs County	40	14	11	9	2	3	3	1	1	2 86	3 36	-	-	-
Wilkinson County	231	90	68	55	12	22	20	12	10	2 57	3 01	-	-	-
Alma city, Bacon County	3 533	1 397	959	571	355	438	417	234	191	2 53	3 11	130	121	9
Alpharetta city, Fulton County	12 884	5 265	3 603	3 013	478	1 662	1 282	280	240	2 45	2 95	118	118	-
Alston town, Montgomery County	160	56	42	36	4	14	13	11	8	2 86	3 45	-	-	-

Reference No. 8

TELEPHONE CONTACT SUMMARY

DYNAMAC CORPORATION

CALL MADE BY: Sandra J. Harrigan
DATE: May 6, 1994
TIME: 9:45 am

SIGNATURE/DATE: 5/16/94

PERSON CONTACTED: NAME Carl Hall
TITLE Regional Supervisor
PHONE (912) 727-2112 or (912) 756-3691
ORGANIZATION Georgia Department of Natural Resources, Wildlife Resources Division, Coastal Region Fishery Management

GENERAL SUBJECT: The extent of tidal influence in selected surface water bodies in the Savannah, Georgia.

DISCUSSION: Mr. Hall Provided me with the following information on the extent of tidal influence in selected surface water bodies in the Savannah area.

Hardin Canal - The Hardin Canal is not tidal at Interstate 16. The extent of tidal influence ends between Highway 17 and Interstate 16. This canal is not tidally influence in the Pooler area.

Pipe Makers Canal - The extent of tidal influence in the Pipe Makers Canal is past Highway 307 approximately up to Interstate 95.

Savannah and Ogeechee Canal - No information on tidal influence in available for the Savannah and Ogeechee Canal (Springfield Canal). This canal is usually dry except during and after heavy rainfall.

Savannah and Dundee Canal - The Savannah and Dundee Canal is tidally influenced up to about two miles inland from the mouth of the canal. This canal is dry midway between the Savannah River and Ogeechee River.

Savannah River - The Savannah River is tidally influenced all the way up to river mile 43 near the mouth of Ebenezer Creek in Effingham County. There is reversal of flow up to river mile 33 near Millstone Landing below Interstate 95.

I also asked Mr. Hall about the flow rate of the Savannah River. Mr. Hall replied that I would have to contact the U.S. Geological Survey for flow rate information.

Reference No. 9

TELEPHONE CONTACT SUMMARY
DYNAMAC CORPORATION

CALL MADE BY: Susan L. Rusher
Dynamac Corporation
Susan L Rusher 9/15/92

REGION: IV
SITE: Latex Construction

DATE: September 15, 1992
TIME: 1:50 pm

CERCLIS NO. GAD980803696

PERSON CONTACTED:

NAME	Bill Stokes
TITLE	Supervisor Hydrologist
PHONE	1-706-903-9100
ORGANIZATION	U.S. Geological Services
ADDRESS	Athens, Georgia

GENERAL SUBJECT

Types of Surface Water Bodies in the Thunderbolt area.

CONVERSATION SUMMARY

Mr. Stokes described the Wilmington River as a tidally influenced estuarine body of water that during peak hours of high tide may flow at 10,000 cfs. The net flow out to sea would be approximately 1,000 cfs. The Williamson Creek was defined as a minimal stream at less than 10 cfs, but still tidally influenced. The Savannah River flows at greater than 10,000, but not more than 100,000 cfs.

Reference No. 10

TELEPHONE CONTACT SUMMARY

DYNAMAC CORPORATION

CALL MADE BY: Sandra J. Harrigan SIGNATURE/DATE: Sandra J. Harrigan 4/28/94
DATE: April 28, 1994
TIME: 11:00am

PERSON CONTACTED: NAME Carl Hall
TITLE Regional Supervisor
PHONE (912) 727-2112 or (912) 756-3691
ORGANIZATION Georgia Department of Natural Resources, Wildlife Resources Division, Coastal Region Fishery Management

GENERAL SUBJECT: Uses of surface water bodies in the Savannah, Georgia.

DISCUSSION: Mr. Hall Provided me with the following information on surface water bodies in the Savannah area.

Hardin Canal - Hardin canal is part of the Ogeechee River watershed. This canal is an industrial drainage canal which is intermittent in the channelized portion. There is no fishing in the shallow portions of the Hardin canal. It is fished in the lower (transitional) end near its confluence with Salt Creek, where it is tidally influenced and contains more water.

Pipe Makers Canal - This canal is extremely long and drains into the Savannah River. There is fishing in the portions west of Highway 307 in the Pooler area. Downstream of Highway 307 (Dean Forrest Road) the canal is intermittent all the way to the Savannah River. There is occasional fishing in the areas downstream of Highway 307. There was a fish kill in one of the tributaries of Pipe Makers canal (near the Savannah Municipal Airport); however, the responsible party was never identified.

Savannah and Ogeechee Canal - This canal is also known as Springfield Canal. The Savannah and Ogeechee Canal is fished from the Savannah River inland. It is intermittent near the government subsidized housing (near the Savannah River); there is no serious fishing in the intermittent portions. Fish caught in this canal include the finger mullet. At this time the city of Savannah is in the process of installing trash screens and a pumping system in this canal to prevent flooding of neighboring residential areas when there is an excess of three inches of rainfall.

Savannah and Dundee Canal - The Savannah and Dundee Canal is an industrial drainage canal. It is very intermittent near Highway 307 and has more water near the Savannah River where it is tidally influenced. There is no fishing in the Savannah and Dundee Canal.

4/28/94

Salt Creek - Salt Creek is a fishery. It is also tidally influenced.

St. Augustine Creek - St. Augustine Creek is a fishery. People usually access this creek by boat via the Savannah and Front Rivers. Canoeing is also done in this creek.

Little Ogeechee River - The Little Ogeechee River is a fished from Interstate 95 (I-95) to the upper end of Forrest River. In the dry seasons some areas of the river are dry and there are big holes with water in them where people fish. This river is tidally influence and is accessed by boats. Stripped bass is usually caught in the Little Ogeechee River.

Savannah River - The Savannah River is a fishery. The Coastal Region Fishery Management is currently trying to restore the stripped bass population in the Savannah River; the river is a spawning area for the stripped bass. The Savannah River splits into the Front, Back and Middle Rivers. The Front River is the navigational channel of the Savannah River. It is also the harbor channel, meaning it is used for industrial purposes. The U.S. Environmental Protection Agency (EPA) is currently involved in a useability study of the Front River. Jim Greenfield of the Water Quality Section of EPA can be contacted for further details on the useability study. Fishing does occur in the Front River.

I asked Mr. Hall if there are any surface water intakes that are used for drinking water purposes in the Savannah area along the above mentioned surface water bodies. Mr. Hall replied that there are no surface water intakes along the above mentioned surface water bodies. The only surface water intake that is used for drinking water in the Savannah area is owned by the City of Savannah Water Department and it is located on Albercorn Creek approximately one mile upstream from the confluence of the Savannah River and Albercorn Creek.

Reference No. 11

ENDANGERED & THREATENED SPECIES

of the SOUTHEAST UNITED STATES

"The Red Book"

REGION 4

ATLANTA

GEORGIA

ENDANGERED AND THREATENED SPECIES

OF THE

SOUTHEASTERN UNITED STATES

(THE RED BOOK)

Introduction Section, Volume 1

Prepared by:

U.S. Fish and Wildlife Service
Southeast Region
Atlanta, Georgia

January 1992

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U.S. Fish and Wildlife Service. 1992. Endangered and Threatened Species of the Southeast United States (The Red Book). Prepared by Ecological Services, Division of Endangered Species, Southeast Region. Government Printing Office, Washington, DC. 1,070 pp.

3/17/93

Federally Listed Species by State

GEORGIA

(E=Endangered; T=Threatened; CH=Critical Habitat determined)

Mammals	General Distribution
Bat, gray (*Myotis grisescens*) - E	Northwest, West
Bat, Indiana (*Myptis sodalis*) - E	Extreme Northwest
Manatee, West Indian (*Trichechus manatus*) - E	Coastal waters
Panther, Florida (*Felis concolor coryi*) - E	Entire State
Whale, finback (*Balaenoptera physalus*) - E	Coastal waters
Whale, humpback (*Megaptera novaeangliae*) - E	Coastal waters
Whale, right (*Eubalaena glacialis*) - E	Coastal waters
Whale, sei (*Balaenoptera borealis*) - E	Coastal waters
Whale, sperm (*Physeter catodon*) - E	Coastal waters
Birds	
Eagle, bald (*Haliaeetus leucocephalus*) - E	Entire State
Falcon, American peregrine (*Falco peregrinus anatum*) - E	North
Falcon, Arctic peregrine (*Falco peregrinus tundrius*) - T	Coast, Northwest
Plover, piping (*Charadrius melodus*) - T	Coast
Stork, wood (*Mycteria americana*) - E	Southeastern swamps
Warbler, Bachman's (*Vermivora bachmanii*) - E	Entire State
Warbler, Kirtland's (*Dendroica kirtlandii*) - E	Coast
Woodpecker, ivory-billed (*Campephilus principalis*) - E	South, Southwest
Woodpecker, red-cockaded (*Picoides [=Dendrocopos] borealis*) - E	Entire State
Reptiles	
Alligator, American (*Alligator mississippiensis*) - T(S/A)*	Coastal plain
Snake, eastern indigo (*Drymarchon corais couperi*) - T	Southeast

*Alligators are biologically neither endangered nor threatened. For law enforcement purposes they are classified as "Threatened due to Similarity of Appearance." Alligator hunting is regulated in accordance with State law.

GEORGIA (Cont'd)

	General Distribution
Turtle, Kemp's (Atlantic) ridley (Lepidochelys kempii) - E	Coastal waters
Turtle, green (Chelonia mydas) - T	Coastal waters
Turtle, hawksbill (Eretmochelys imbricata) - E	Coastal waters
Turtle, leatherback (Dermochelys coriacea) - E	Coastal waters
Turtle, loggerhead (Caretta caretta) - T	Coastal waters
Fishes	
Darter, amber (Percina antesella) - E,CH	Conasauga R., Murray County
Darter, goldline (Percina aurolineata - T	Upper Coosa River System
Darter, snail (Percina tanasi) - T	S. Chickamauga Cr., Catoosa County
Logperch, Conasauga (Percina jenkinsi) - E,CH	Conasauga R., Murray County
Shiner, blue (Cyprinella caerulea) - T	Conasauga and Coosawattee Rivers, Holly, Rock, Perry, and Turniptown Creeks
Sturgeon, shortnose (Acipenser brevirostrum) - E	Coastal rivers
Mollusks	
Acornshell, southern (Epioblasma othcaloogensis) - E	Coosa River drainage
Clubshell, southern (Pleurobema decisum) - E	Coosa River and tributaries
Combshell, upland (Epioblasma metastriata) - E	Conasauga River
Kidneyshell, triangular (Ptychobranchus greeni) - E	Coosa drainage of the Conasauga River
Moccasinshell, Alabama (Medionidus acutissimus) - T	Conasauga River
Moccasinshell, Coosa (Medionidus parvulus) - E	Chatooga River; Conasauga River
Pocketbook, fine-lined (Lampilis altilis) - T	Conasauga River
Pigtoe, southern (Pleurobema georgianum) - E	Upper Conasauga River

GEORGIA (Cont'd)

	General Distribution
Plants	
Amphianthus pusillus (little amphianthus) - T	Piedmont Region (17 Counties)
Baptisia arachnifera (hairy rattleweed) - E	Wayne, Brantley Counties
Echinacea laevigata (smooth coneflower) - E	Stephens County
Helonias bullata (Swamp pink) - T	Union County
Isoetes melanospora (black-spored quillwort) - E	Dekalb, Rockdale, Gwinnett Counties
Isoetes tegetiformans (mat-forming quillwort) - E	Columbia, Hancock, Greene, Putnam Counties
Isotria medeoloides (small whorled pogonia) - E	Rabun County
Lindera melissifolia (pondberry) - E	Wheeler County
Marshallia mohrii (Mohr's Barbara's-buttons) - T	Floyd County
Oxypolis Canbyi (Canby's dropwort) - E	Burke, Lee, Sumter Counties
Ptilimnium nodosum (harperella) - E	Greene County
Rhus michauxii (Michaux's sumac) - E	Elbert, Columbia, Gwinnett, Muscogee, Newton, Rabun, Counties
Sagittaria secundifolia (Kral's water-plantain) - T	Chattooga County
Silena polypetala (fringed campion) - E	Bibb, Crawford, Taylor, Talbot Counties
Sarracenia oreophila (green pitcher plant) - E	Towns County
Scutellaria montana (large-flowered skullcap) - E	Floyd, Gordon, Walker Counties
Schwalbea americana (American chaffseed) - E	Baker, Dougherty Counties
Spiraea virginiana (Virginia spiraea) - T	Walker, Dade Counties
Torreya taxifolia (Florida torreya) - E	Decatur County
Trillium persistens (persistent trillium) - E	Tallulah-Tugaloo River system, Rabun and Habersham Counties
Trillium reliquum (relict trillium) - E	Clay, Columbia, Early, Talbot, Lee Counties
Xyris Tennesseensis (Tennessee yellow-eyed grass) - E	Bartow County

COMMERCE

WEATHER
F. W. Reed.

TECHNICAL PAPER NO. 40

RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

PRICE LIST: RAINFALL FREQUENCY ATLASES October 1985

The atlases described below may be ordered on one reel of 35mm microfilm at $12.50, or as individual paper pages at $2 per page, $4 service and handling charge per order. (Prices subject to change without notice.) Call to confirm current price.

National Climatic Data Center
Federal Building
Asheville, NC 28801-2696
704 CLI-MATE or 704-259-0682
Telex 6502643731

TP-40: Rainfall Frequency Atlas of the US - Weather Bureau Technical Paper No. 40 (Washington, DC: GPO, 1961) 14x21 ins, paper cover, 61 pages. (Superseded in part by two publications listed below.)

Presents 49 US rainfall frequency maps for selected durations from 30 minutes to 24 hours and return periods from 1 to 100 years. OUT-OF-PRINT, but a 8 1/2x14 in. reduced photocopy priced at $15 is available from the NCDC address above. Make payment to "Commerce-NOAA-NCDC".

HYDRO-35: Five- to 60-Minute Precipitation Frequency for the Eastern and Central US - NOAA Technical Memorandum NWS HYDRO-35 (Silver Spring, MD: NWS, 1977) 8 1/2x11 ins, cardstock cover, 36 pages. (Supersedes TP-40 above for the eastern 2/3 of the US for durations of 1 hr. and less).

Presents 6 US rainfall frequency maps for durations of 5, 15 and 60 minutes at return periods of 2 and 100 years. Equations are given to derive 10- and 30-min values between 2 and 100 years.

Order from: National Technical Info. Svc.
5285 Port Royal Rd.
Springfield, VA 22161
Order Desk Phone: 703-487-4650

Order No : PB 272-112
Prices: Paper $8.50
Microfiche $4.50

NOAA Atlas 2: Precipitation Frequency Atlas of the Western US (Washington, DC: GPO, 1973) 16x22 ins, cardstock cover, 11 Vols (Supersedes TP-40 above for the 11 western states) OUT OF PRINT.

This atlas contains maps for the 6- and 24-hour durations for return periods of 2, 5, 10, 25, 50, and 100 years. All maps are prepared on the same 1:2,000,000 scale.

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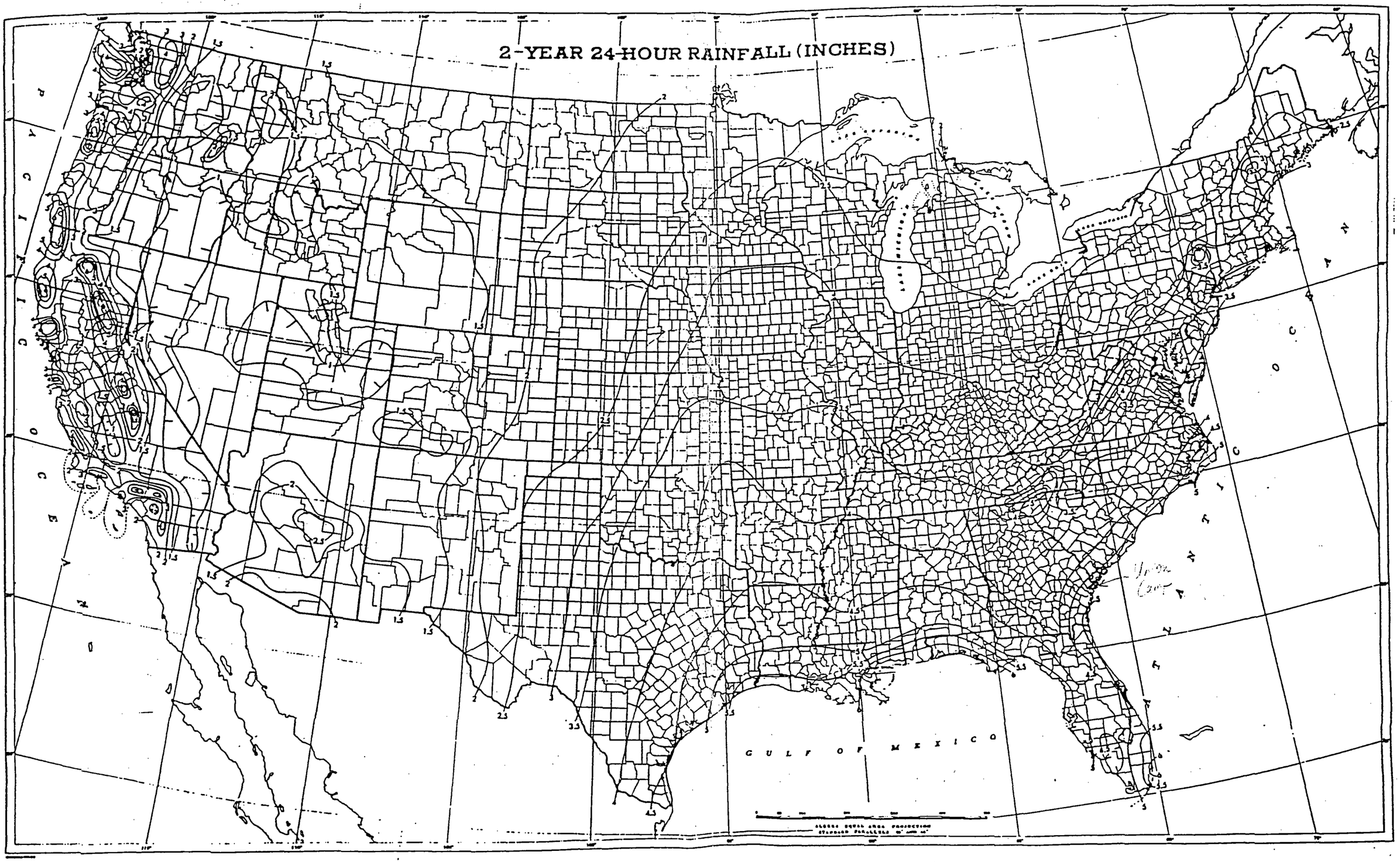
2-YEAR 24-HOUR RAINFALL (INCHES)



Reference No. 13

GRAPHICAL EXPOSURE MODELING SYSTEM

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CENSUS DATA

UNION CAMP
LATITUDE 32: 5:57 LONGITUDE 81: 7:58 1990 POPULATION

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	0	0	0	0	0
S 2	0	28	0	0	0	0	28
S 3	0	0	856	5533	5431	16859	28679
S 4	0	0	589	2777	5083	14241	22690
S 5	0	0	1328	0	1598	2810	5736
S 6	0	0	0	6071	660	0	6731
RING TOTALS	0	28	2773	14381	12772	33910	63864

Press RETURN key to continue ...